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The American Artisan

THE HARDWARE RECORD

Volume 42.—No. 12. CHICAGO, SEPTEMBER 21, 1901. $2.00 Per Year.

Quality IS THE FIRST CONSIDERATION WITH A **Progressive Dealer.**

THIS IS WHY HE PREFERS A

DAUNTLESS MALLEABLE IRON & STEEL RANGE

TO ANY OTHER.

INVESTIGATION of the **MERITS** of the **DAUNTLESS** will convince you that they are far ahead of other ranges.
KEEP posted regarding the improvements in range construction.
Do not waste time and money with steel ranges which belong to the past.
Handle an up-to-date **DAUNTLESS**—made of **MALLEABLE IRON AND STEEL.**

DAUNTLESS RANGES possess distinctive features:

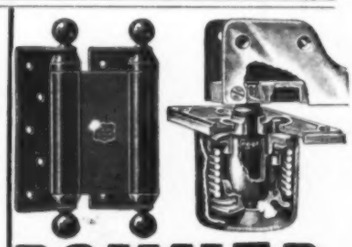
SMOOTH POLISHED TOP,
IMPROVED GRATE HOUSING,
GRATE INDICATOR,
RATCHET DRAFT DOOR,
MALLEABLE BACK FLUE,
IMPROVED OVEN.

DAUNTLESS RANGES ARE ELEGANT IN APPEARANCE,
PERFECT IN OPERATION,
OF DURABLE CONSTRUCTION,
SAVING IN FUEL.

Dauntless Manufacturing Co., Beaver Dam, WIS.

We make a full line of
Stove Bolts, Stove Rods,
Machine Screws,
Pointed Pins,
Threaded Wires,
Rivets,
Special Bolts,
Mica Bolts,
Cold Pressed Nuts.

Atlas Bolt & Screw Co.
CLEVELAND, O.



BOMMER SPRING HINGES.
BOMMER BROS. BROOKLYN, N.Y.

A UNIVERSAL REMEDY FOR

LEAKY ROOFS.

The valuable qualities of a good roofing cement are firm adhesiveness and elasticity. These qualities the

AMERICAN SEAL BUILDERS' AND ROOFERS'

ELASTIC OIL CEMENT

possesses. It will adhere firmly to Slate or Metal and will not crack or crumble. It is especially recommended for repairing leaks around chimneys, dormer windows, skylights, scuttles, firewalls and any place that requires fixing on a roof, either Slate, Tin or Shingle.

This Cement will answer to repair **a roof** when **Solder** can not be used.

MANUFACTURED BY

Wm. Connors Paint Mfg. Co.
TROY, N. Y.
WESTERN AGENTS—J. L. PERKINS & CO.,
241 Lake Street, - - - CHICAGO, ILL.
STOCKHOFF SUPPLY CO., ST. LOUIS, MO.

Trying—to—do—business—without—advertising—is—like—winking—at—a—girl—in—the—dark;—you—know—what—you—are—doing—but—nobody—else—does.

BRADLEY SHELF BRACKETS.
Strong, Light and All Right.
ATLAS MFG. CO., New Haven, Ct.

THIS SPACE FOR SALE
INQUIRE OF OWNER,
DANIEL STERN, 69 DEARBORN ST.,
CHICAGO.

Black Diamond Files and Rasps.
PERFECT—ALWAYS
Twelve Medals Awarded.
At International Expositions.

G. & H. BARNETT CO.,
Black Diamond File Works. PHILADELPHIA, PA.

Columbus Bolt Works,
Columbus, O.

Bolts,
Nuts,
Washers,
Turn Buckles,
Bridge and Roof Rods
and
Bolts
ALL KINDS OF CARRIAGE FORGINGS, ON APPLICATION.
CATALOGUE

THE "GLOBE" VENTILATOR,
In Brass, Copper, Galvanized Iron and with Glass Tops for Skylight purposes.

FOR PERFECTLY VENTILATING
Schools, Churches, Halls, Mills, Factories and Audience Rooms of Every Character.

SMOKY CHIMNEYS CURED.
"Globe Ventilated Ridging"
Send for Pamphlet.

Manufactured by
GLOBE VENTILATOR CO., TROY, N. Y.

BOILERS AND RADIATORS

A Postal Card from you will bring valuable, complete information in regard to the best, most comprehensive, strictly modern line of these goods.

WRITE US TODAY.
New York, Boston, Philadelphia, St. Louis, Buffalo, Minneapolis, Denver, Detroit, London.

AMERICAN RADIATOR COMPANY
Lake and Dearborn Sts., CHICAGO.

"TABASCO" Water Heaters.

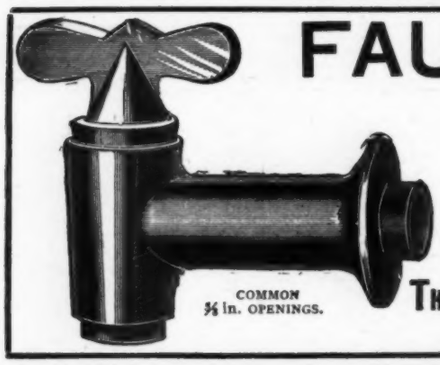
ALL STEEL, SELF-FEED, SHAKING GRATE.

FOR Small Residences, Greenhouses, Flats, Hotels, Baptisteries, Bath Houses, any place a supply of hot water is needed.

SEND FOR CATALOGUE.

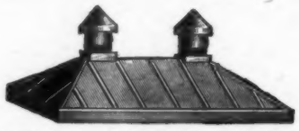
Kewanee Boiler Compa'y
Kewanee, Ill.
CHICAGO STORE: 167-169 E. Lake St., CHICAGO.

FAUCETS.



COMMON ⅝ in. OPENINGS.

Beer
Milk Can
Oil Can
Cream Separator,
of Various Sizes and Styles.
MF'D. BY
THE CLARK NOVELTY CO.
ROCHESTER, N. Y.



"The Illinois"

METALLIC SKYLIGHTS

Are known in every State. Have stood the test for years. Are made in 10 styles and 500 sizes. Complete Skylight, Cornice and Finial Catalogue mailed free.

J. H. JONES, Mfr.,
Lock Box 33. STREATOR, ILL.

C. C. Arbogast, Monterey, Va., writes: "I beg to take advantage of your kind offer of inserting a free want ad. in your journal. Am a regular subscriber to The American Artisan, and I can tell you, without an iota of flattery, that I find it indispensable."

There's Only One Warm Air Generator

THE KELSEY WARM AIR GENERATOR has been known by this name and so advertised for twelve years, and is manufactured solely by the Kelsey Furnace Company, Syracuse, N. Y.

The splendid results obtained with the "KELSEY" are becoming better known each year, and the demand for them has increased so rapidly that a certain firm or company hoping to reap some of the benefits of the now famous "KELSEY" have used the term "Warm Air Generator" in connection with a heater they make.

The construction, however, of the KELSEY WARM AIR GENERATOR, being fully covered by patents, will be protected and cannot be successfully imitated.

The Kelsey Warm Air Generator will increase your business.
The Kelsey method of warming the air is the best method.

Kelsey Furnace Co.

Makers of the Kelsey Warm Air Generator.

SYRACUSE, N. Y.

QUICK MEAL

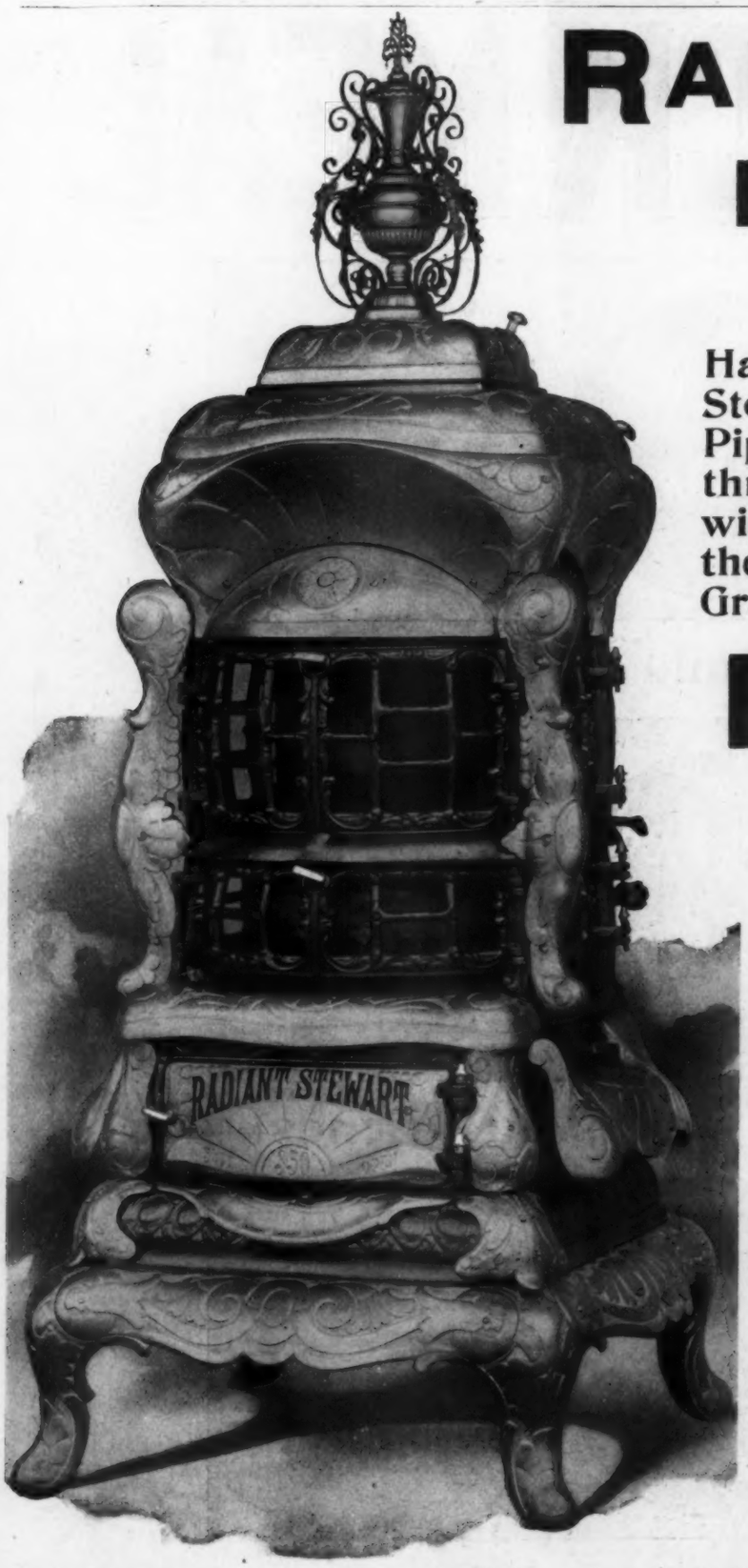
THE RANGE THAT LEADS

They Build Up Your Trade!

They Make You Friends!

They Hold Your Customers!

RINGEN STOVE Co. SAINT LOUIS



RADIANT S

BASE BU

. . . FOR 19

Has The Most Beautiful Nick
Stove. It is a Full Double He
Pipe Collar. The Firepot
through front doors. It is m
with Nickel or Mica Inturne
the only Perfect Duplex Shak
Grate. A Great Fuel Saver.

Prize Ste

Base Bur

. . . For 1901

This is the most at
medium priced Ba
er on the Market.
medium in price it
Class in Quality.
great saver of f
large flues and u
in every respect. T
pot can be removed th
side doors. It has a
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The Fuller Wa

STEWART BURNER.

R 1901 . . .

ful Nickel Ever Seen on a
ouble Heater with Hot Air
Firepot can be removed
It is made in three sizes
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ex Shaking and Dumping
Saver.

Stewart Burner.

1901 . . .

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of fuel, has
and up-to-date
ect. The Fire-
oved through the
has a perfect du-
g Grate.

Warren Co. Milwaukee, Wis

The Smokeless Hot Blast

An Entirely New Production

It is constructed on modern designs and is perfect in every particular.

It has a fire pot consisting of thirty sections, each section weighing three pounds or 90 lbs. for the fire pot complete.

This fire pot can be removed in sections without dismantling the stove or removing a bolt.

Owing to the peculiar construction of this fire pot we will guarantee that this stove will radiate as much heat from the base of the stove as the ordinary hot blast will from the top.

The life of a heating stove is measured by the durability of the fire pot. We give you a fire bowl guaranteed for five years, and absolutely proof against fire crack. The grate is large, anti-clinker, and ball bearing. The stove has a large ash pan. It is mounted in 14 gauge steel.

It will save 20 per cent. of the fuel and hold fire 36 hours.

We can especially recommend the stove for burning slack coal.

Ohio Stove Co.

PORTSMOUTH, O.

White's Stoves and Ranges ARE LEADERS

White's Superb

For Coal or Wood.

Single Firepot, Inside Ring to protect Drum. Oscillating Hot Blast Tube, Ash Pan, Nickeled Steel Top Ring, Urn, Urn Bottom, Name Plate, Foot Rails and Screw Draft Dampers.

White's Superb, Nos. 14-16-18-20-22.

White's Hot Blast

For Coal.

Mounted with Wood's Planished Steel. Nickeled Steel Top Ring, Urn, Urn Bottom, Foot Rails and Screw Draft Damper. Heavy Cast Top, Cast Base and Bottom, made in one piece; Oscillating Air Blast, Double Fire Pot, with Steel Lining in Upper Part of Drum, Drop Ash Pit Door, Cast Columns on Outside of Drum. Write for Catalogue.

White's Hot Blast, Nos. 16-18-20.

Thomas White Stove Co.

QUINCY, ILL.

The Steel Strike

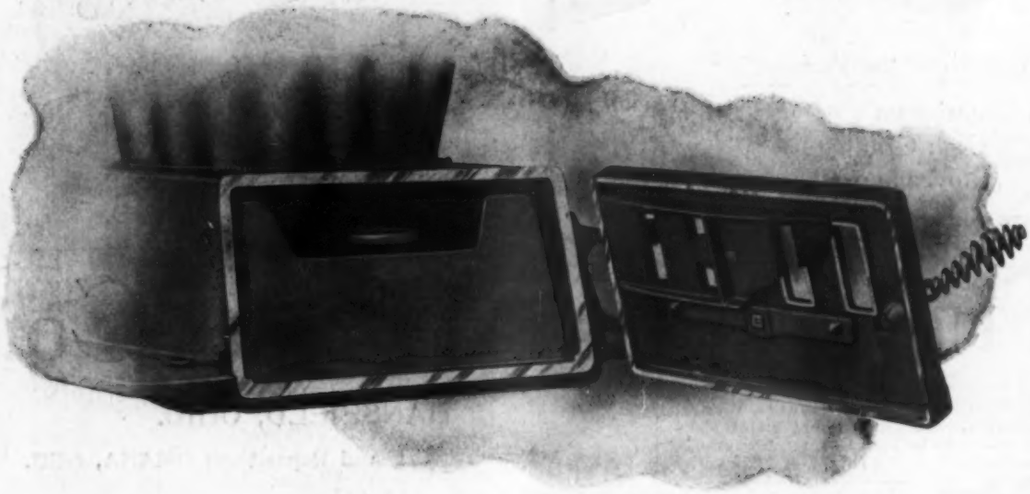
cannot hurt us. We bought steel for our year's needs nine months ago, when steel was cheap and have it piled away in our warehouse.

No one in the country makes a larger or better line of **Cast Iron** and **Steel Goods** than we do and at popular prices. Write for **Catalogue** and **Prices.**

Channon Emery Stove Co.

QUINCY, ILLINOIS.

Moore's Air-Tight Heater



Ground Joints Make Perfect Air-Tights

Much of the success of Moore's Air-Tight Heater, lies in the perfection of the base door, all joints being ground to within $\frac{1}{1000}$ of an inch of actual contact.

The lever by which the draft slide is operated is also an exceedingly satisfactory device, as it enables one to accurately register the admission of air, and gives complete control of the fire.

JOLIET STOVE WORKS,

JOLIET, ILLINOIS.

32

Excel Eclipse

A Square Oven
Coal and Wood Cook
OF
HIGH QUALITY.

"A Book about the Eclipse,"

A Treatise on
High Grade
Stoves and Ranges.

WRITE FOR A COPY.

The Eclipse Stove Co.,

NOTICE.—Customers in Nebraska, Western Iowa, Southern So. Dakota, and Black Hills: Send your orders to THE ECLIPSE STOVE CO., Omaha, Neb., for quick shipment.

MANSFIELD, OHIO.

Western Office and Repository: OMAHA, NEB.

Model Oak

Entirely New Line for 1901.

We use the old name, but the numbers are different.

The Round Air Tight Register is ground into its seat on the inside of the ash pit door and will remain at any degree of opening required to supply air for combustion through the opening.

The register construction is such that the **Grate Handle** can be pulled out through the register opening.

The Extension on Top of the Fire Pot extends up inside of the steel drum and is cast solid with the fire pot so it cannot twist and warp.

The Sectional Ring fits over the flange turned out on the bottom of the steel drum.

The Ash Pan fits tightly all around the edges of the ash pit.

The joints remain tight.
The price is just right.
Ask for more information.

MODEL OAK.

The Portsmouth Stove & Range Co.

THE BUSIEST MAKERS OF STOVES & RANGES IN THE WORLD

Portsmouth, O.

MORLEY BROS.,
Saginaw, Mich.,
Agents for Michigan and the Northwest.

Forest Cinderella.

For Wood.

Contains many special features.

Here Are A Few of Them.

Heavy cast iron linings 16 inches high. Pipe Collar interchangeable with top and end. Sweat Damper to prevent creosote deposits. Screw draft register insures perfect control of the fire. Write for full description and prices if you are interested.

STOVES AND RANGES CINDERELLA NEVER FAIL

Pittsburgh Stove & Range Co.,

Pittsburgh, Pa.

WESTERN SALES AGENT **W. D. Sager, 38 to 40 Michigan St., Chicago, Ill.**

STOVES AND RANGES CINDERELLA NEVER FAIL

Our Steel Ranges and Stoves

Are made under our personal supervision. The management attends to each detail in its several branches.

We employ in the making of our goods the

Best Material
Best Mechanics
Best Supervision

That money can procure.

Detroit Steel Range Co.

Factory and Show Room:

13-45 Widman Place,
DETROIT, MICH.

"Norman" Steel Range

BUILT LIKE A WATCH

ATTRACTIVE.

ECONOMICAL.

DURABLE.

In the **"Norman"** Range are embodied up-to-date features that sell stoves.

The Fire Box is Oval in Shape and of Goodly Dimensions.

Either Duplex or Dockash Grates can be used. Grates removable through end door without removing any fire box linings.

Send for Illustrated Catalogue descriptive of Our Full Line of Steel and Cast Ranges and Heaters.

Calusha Stove Co., Makers, Rochester, N. Y.

Heat and Light.

Two of the most important factors to home comfort. Two essentials that are of vital interest to every householder.

The Bolton Hot Water Heater

Keeps the home at an even comfortable temperature at all times at small expense.

The Combination Gas Machine and Mixing Regulator

Gives a light stronger than electricity and cheaper than kerosene oil.

The dealer can greatly add to his profits by interesting prospective customers. Can't we send you our catalogues and show you how we can be of service to both you and your trade?

Detroit Heating & Lighting Co.

DETROIT, MICH.

Wholesale Prices! If your dealer does not handle MONARCH MALLEABLE IRON & STEEL RANGES we will ship the first one ordered from your community at wholesale price—saving you $10.00 to $25.00 from any other malleable range. Freight paid 400 miles. SENT FREE—Handsome catalogue with wholesale prices and full particulars.

MALLEABLE IRON RANGE CO.,
Recently St. Louis, Mo.,
3114 Lake St., Beaver Dam, Wis.

Mr. Live Dealer

This advertisement for

MONARCH

Malleable Iron and Steel Ranges is now appearing in over sixty of the leading Magazines and Family Papers of the United States. The combined circulation each month is over thirty million copies.

This insures the attention of more readers in your community than an advertisement in all your local papers combined. It further means that thousands of **MONARCH** Catalogues are being placed in the hands of persons desiring to purchase a first-class Steel Range and who will read them from beginning to end. Some of these are rightfully your customers and with **MONARCH** Ranges in stock you can easily have the sale.

MONARCH Ranges are made of Steel and Malleable Iron. They have no Equal.

Send at once for catalogue and special introductory offer to live dealers, including our "follow-up" plan, which is endorsed as the greatest help to a dealer in selling steel ranges ever offered by any manufacturer.

Malleable Iron Range Co. Beaver Dam, Wis.

Ohio and U. S.

Wrought Steel Ranges

We are pioneers in steel range business; old in experience yet adopt modern up-to-date methods. Write for our catalog.

Tinnerman Steel Range Co.,
CLEVELAND, O.

Economy Gas Heating Stoves

For Natural or Artificial Gas.

FOURTEEN SIZES and SIX STYLES of the most POWERFUL, DURABLE, ECONOMICAL, and ATTRACTIVE Gas Heating Stoves on earth. By securing the agency for the "Economy," dealers are sure to enjoy largely increased sales and profits.

Manufactured by

Economy Stove and Mfg. Co.,

Write for Catalogue. DETROIT, MICH.

The "Eclipse" Adjustable Stove Truck

Made entirely of Steel and Malleable Iron.

OPEN.

CLOSED.

It is light, neat, and at the same time strong and durable. Will last a lifetime and saves its cost annually in preventing breakages, as it is impossible to tip or shove a stove from the ECLIPSE TRUCK.

Stellwagen & Kynoch, St. Ignace, Mich.

Gilt Edge Warm Air
AND
Combination Heaters

are leaders embodying points of furnace excellence possessed by no other furnaces. A large variety of sizes and styles, each especially adapted for a certain class of fuel. We are manufacturers of a complete line of warm air registers, safety pipe and tin galvanized iron furnace fittings.

R. J. Schwab & Sons Co.,

MILWAUKEE, WIS.

NICKEL PLATING OUTFITS.

ZUCKER & LEVETT & LOEB CO
OFFICES. 526. 528. & 530 W. 25TH ST.
NEW YORK. U.S.A.

SEND FOR CATALOGUE OF
NICKEL & ELECTRO PLATING
SUPPLIES & POLISHING MATERIALS

Books by Mail

The Publisher of the American Artisan will take pleasure in supplying Books of whatever character, at catalogue prices, prepaid by mail, to any address, on receipt of price. The following are lines specially represented:

Sheet Metal Working. The Foundry. The Workshop. Heating and Ventilating. Plumbing and Drainage. Bicycle Repairing. The Store and Office.

Daniel Stern,

Publisher and Bookseller,

69 Dearborn St. CHICAGO.

H. G. Groth
Cedarburg, Wis., Writes:

"Please take out my advertisement for a tinner. I am "overflooded" with letters from all parts of the State, and was able to select one of them."

THE merchant who doesn't advertise is in a rowboat, pulling and steering and making no headway. The advertiser is in a steam launch, and has only to steer and keep his boat trimmed.—*Brattleboro (Vt.) Reformer.*

THE STEEL STRIKE

Has sent the price of material soaring. We have a large stock of Furnace Pipe, Fittings, Registers, Asbestos Cement, etc. Our prices will even **wake up**

A WIDE AWAKE MAN

Why not drop us a postal. We'll do the rest.

THE WIRETON TIME REGULATOR.

A marvelous Seller.
Will automatically turn on the draft of any furnace, steam, or hot water boiler.

THE HOFFMAN STEEL FURNACE.

The highest type of an exclusively hard coal furnace.

THE AUER SIDE WALL REGISTER.

No Cut Carpets.
A comfort as well as an ornament. No dirt, no dust, easily cleaned.

Our furnaces and specialties are great levers for pushing business your way. Exclusive agencies given.

WIRETON HEATING CO., MAIN OFFICE AND WORKS Blue Island, Ill.

CHICAGO OFFICE, 40 DEARBORN ST.

The making of heating apparatus—

Hot Water Heaters, Steam Heaters and Furnaces,

is our Specialty. In over fifty years of experience we have met with about every phase of the heating problem. The manufacture of economical and durable heating apparatus has been our constant aim, and our success has been fully demonstrated by our long continuance in this line.

REMEMBER, efficiency and durability are the sure tests of cheapness.

Catalogues, Price Lists and Discounts cheerfully furnished the trade.

The Boynton Furnace Co.,

New York and Chicago.

STILL IN THE LEAD.

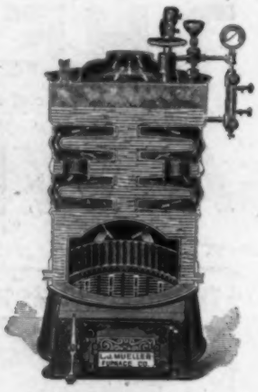
MUELLER
FURNACES AND BOILERS

ALWAYS TO THE FRONT.

Made in All Sizes—For All Kinds of Fuel.
Write for Catalogue and Prices.

Everything in the Heating Line.

Get Our Special Register Offer.



L. J. Mueller Furnace Co.

Established 1857.

191 Reed St.
Milwaukee, Wis.

BRAND STOVE CO.

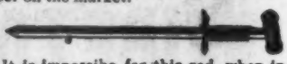
We make largest line of cooking and heating apparatus, cast cooks, cast ranges, steel cooks, steel ranges, hotel outfits, heating stoves, furnaces, hot water and steam heaters. Send for catalogs.

MILWAUKEE, WIS.

The YANKEE Hot Air DAMPER (Improved) All Steel.

Above All, Cheapness—a dealer cannot possibly make dampers as cheaply as we sell the Yankee. Easily put in and taken out of pipes. Stiffest, quickest working and neatest damper on the market.

ROD POINTS: Has wood enameled handle. Wood handle cannot come off. Washer and spring cannot fall off the rod. Same size of holes are punched on each side of pipe. Rod is made of ⅜-inch cold-rolled steel and slips into damper very smoothly. **Sample sent to any dealer without charge.**



It is impossibe for this rod, when in position, to move either way.

The S. M. HOWES CO., Manufacturers, 40-46 Union St., **Boston, Mass.**

NEW YORK: A. L. Canfield, 248-256 Pearl St. CHICAGO: Excelsior Steel Furnace Co.

Sizes: 6, 7, 8, 8½, 9, 10, 10½, 11, 12, 12½, 14, and 15.

Emperor Furnaces

For Wood

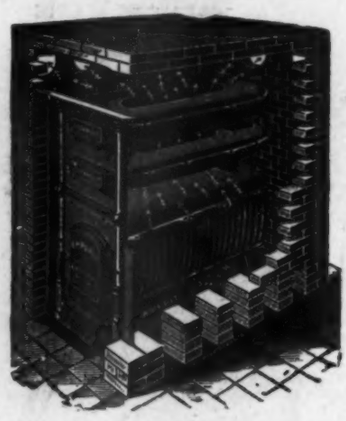
Simple. Safe. Durable.

The Best and Cheapest Line of Wood Furnaces.

Furnished for Either Brick or Galvanized Iron Casing. Send for Catalogue.

Bergstrom Bros. Co.

Neenah, Wis.



Wisconsin Furnaces

stand for the best in furnace construction. They have features which make them trade winners.

Get our prices and printed matter.

Phipps Furnace Co.,

135 ONEIDA ST., MILWAUKEE, WIS.

DON'T READ THIS

Unless you are interested in down-to-the-minute advertising. Have had over 15 years' practical advertising experience with some of Chicago's most successful Manufacturers, Jobbers and Retailers. Am at present engaged with a very large advertiser, but have time to spare and will do a limited amount of work for any one who desires first-class ADVERTISING SERVICE at very reasonable rates. Write for further Particulars.

FRANK. E. RUBOVITS,
233 Fifth Avenue, - - Chicago, Ill.

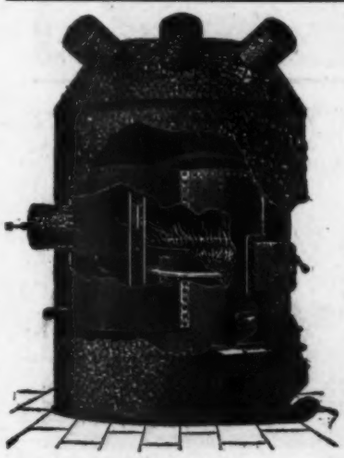
STAR STOVES AND RANGES
ENTERPRISE STOVE CO. VINCENNES, IND.
GUARANTEED

CATALOGUE SHOWING

Gas Ranges
Steel Ranges
Cast Ranges
Steel Cooks
Cast Cooks
Cast and
Steel Heaters
Hot Plates

WILL BE FURNISHED FOR THE ASKING BY

Enterprise Stove Co.
VINCENNES, IND.


Weir Furnace.

Weir ALL STEEL GAS AND SOOT CONSUMING **Furnace.**

The Heaviest Steel Furnace Made.

Absolutely gas and dust tight.
A great heat producer, but a fuel saver.

MADE IN TWELVE SIZES.

"The Handy Furnace Pipe"

The saving of labor in putting it up really makes it the cheapest hot air pipe on the market.

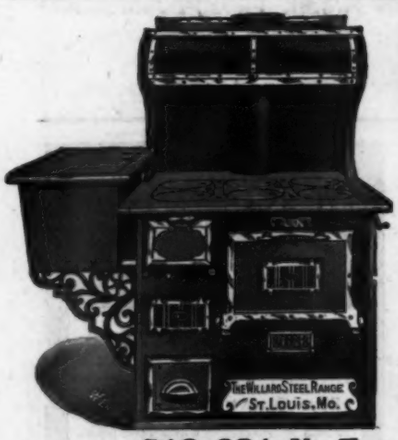
Is Absolu e y Safe.

Handy Pipe.

Manufactured by

Meyer Furnace Co.

Send for Catalogue. PEORIA, ILL.



PROFIT

is what every dealer is after. To get the maximum profit out of your steel range business you want to handle

Willard Steel Ranges,

because they are sold at a price that place them within the reach of all classes. We make no extra charge for name or past reputation.

WM. G. WILLARD, Mfr.,

619-621 N. Fourth St. ST. LOUIS, MO.

JUDGMENT in business matters ought to make it plain to you that it is just as important to you to use good Asbestos Furnace Cement and Stove Putty in the ma nu facture of your furnaces as it is to use good iron

Colebrook's Asbestos Furnace Cement and Stove Putty is the best that can be manufactured. We have furnished the largest manufacturers of furnaces and stoves in the country, and are still doing it. We are ready to furnish you. Why not? Send us your next order. Put up in all size removable cover cans, tubs, barrels and half-barrels.

Manufactured only by

W. H. COLEBROOK, SONS & CO.,

SYRACUSE, N. Y., U. S. A.

Largest Makers of Asbestos Furnace Cement in the World.

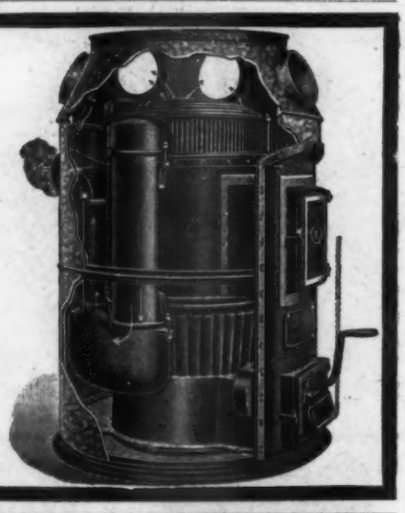
CHAS. SMITH CO.
Western Selling Agents
122 Lake St., Chicago, Ill.

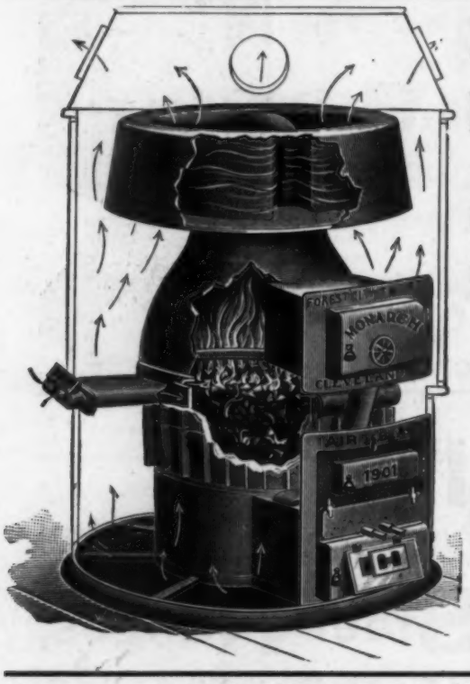
Why

waste time and make enemies by trying to convince a man that he wants a style of furnace which he knows he doesn't want but which happens to be the kind you have an agency for when by securing an agency for **Floral City** warm air and combination heaters you have the best and most complete line of furnaces made by any one concern?

Monroe Foundry & Furnace Co.,

Monroe, Mich.





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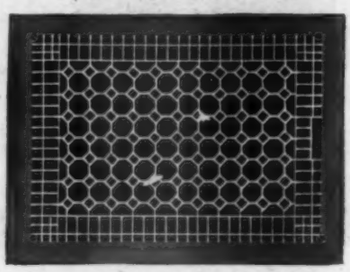

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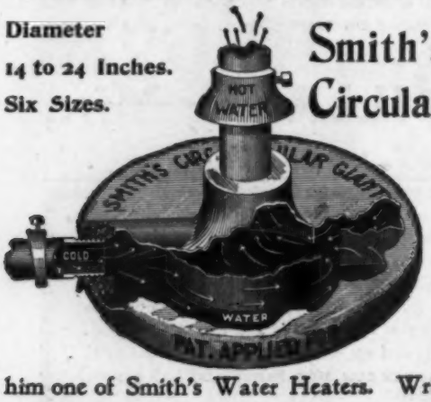

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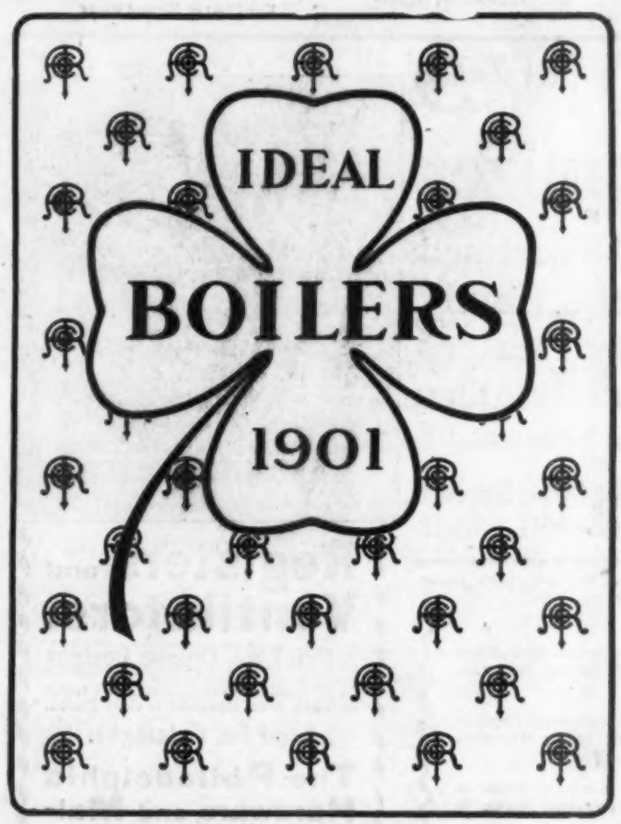

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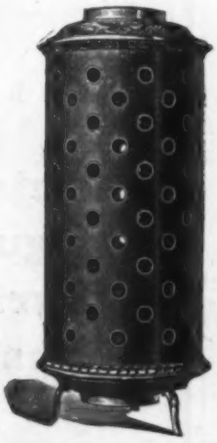
and you will comprehend the great radiating surface directly over the hot current where one square inch is better than six at the side.



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cuts a great figure in the furnace business.

In fact price is about all one hears. But the area of good furnaces and good furnace work is here.

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38

ESTABLISHED 1880

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69 DEARBORN STREET, CHICAGO, ILL.

Entered at the Chicago Post Office as Second Class Matter.

This Paper is a Member of the Chicago Trade Press Association.

CHICAGO, SEPT. 21 1901.

It is said that orders already placed for steel rails at $28 a ton guarantee work for the steel mills all through the year.

The Springfield Republican raises the question as to whether a victory for the United States Steel Co. in its conflict with the Amalgamated Association of Iron, Steel and Tin plate Workers is worth the cost, as it figures out that its success will be temporary rather than permanent.

The internal commerce of the country continues to run ahead of last year's figures by a considerable margin. There are certain exceptions, for example, in the July receipts and shipments of corn, in the shortage of grain receipts in the northwest, and in the lake movement of grain. As a rule, however, the tide of domestic trade has maintained its high level well into the opening of the new harvest year.

An extensive reform in English railway methods is a strong probability of the near future. Careful study of British railroad conditions has proven that the English roads do not by any means make the most economical use of the equipment they have. While the Pennsylvania, the Northwestern and other American roads move trainloads of 484 tons, it apears that 68 tons is the best the British railways can do.

Glasgow has just installed a new municipal telephone system. It already has 5,382 subscribers. One reason why this prosperous Scotch city took this step should commend itself to trans-Atlantic municipal reformers, viz., its determination to retain in its own hands all constructional work in the streets. In our cities gas companies, telephone companies and all sorts of private coporations feel at perfect liberty to rip up any street any time they please to the discomfort and inconvenience of the general public.

The settlement of the steel strike comes as welcome news to all branches of the iron and steel trade, and an early resumption of all the idle plants of the United States Steel Corporation is earnestly desired, not only by manufacturers, but by the consumers as well. During the past ten weeks consumers have been compelled to pay premiums on all the finished material affected by the strike, and now that a settlement has been made there is little doubt but that prices will soon return to their normal level.

Every city ought to have a manufacturers' association. The value of these organizations is shown by the range of questions discussed at the monthly meeting of the St. Louis Manufacturers' Association, held Tuesday, Sept. 17, at 8 p. m. At this gathering of the various manufacturing interests of that city there was a free interchange of opinion on the topics of local car service, amendments to the city charter, river transportation, factory inspection laws, a permanent commercial museum, a fire escape law and trade extension.

The rapid growth of the trade of the United States with Mexico is illustrated by the following statement by the British consul in Mexico, a copy of which has just reached the Treasury Bureau of Statistics: "It is very interesting to note the fluctuations in the proportion that each of the principal countries represents in the total import trade of Mexico. According to returns already published, it is seen that in the year 1873 the United Kingdom's share in this trade represented a very much larger proportion, but with the advance of the railways this proportion has decreased very materially. On the other hand, the proportion of merchandise imported from or through the United States has advanced very considerably. In the fiscal year 1872-3 its value represented 26 per cent of the total, while in the year ended Dec. 31, 1900, this proportion had risen to 51 per cent.

All Americans have been bowed with grief the past week for their departed President, whose manly dignity, wholesome life, simplicity of character, domestic virtues and love for the people endeared him to all sorts and conditions of men. Our departed President has left a name that will be forever memorable in the history of mankind. It was his destiny to stand at the helm when this nation emerged from its exclusiveness and became a world power. It was his master hand that skillfully directed the course of our nation as its influence stretched out beyond the bounds of the western hemisphere. As he himself said in his recent address: "God and man have linked the nations together. No nation can longer be indifferent to any other." This is our new national policy, the child of his brain, and on account of this molding of our commercial future McKinley will take his place on the dias of historical immortality as the representative of a national epoch.

EXPORTS from the United States in the year ending August 31, 1901, were $1,500,613,236. This is the first time in the history of our export trade that the figures for a twelve months' period have crossed the billion-and-a-half line. The growth in exports during the period since 1896, in which the increase in exports has been more than 50 per cent compared with an increase less than 15 per cent in imports, has, as is well known, included all great classes of products and manufactures. Agricultural products now form 63.7 per cent of the total exports, and in 1896 they formed 63.9 per cent. Manufactures now form 29 per cent of the total exports, and in 1896 they formed 28.3 per cent. During the last year, however, the exports of manufactures have not kept pace with those of other industries. In the eight months ending with July, 1901, the latest month in which the details are accessible, exports of manufactures fell $32,000,000 below those of the corresponding months of last year, while exports of agricultural products were $57,000,000 greater than those of the corresponding months of last year. This reduction in exports of manufactures is about equally divided between copper, iron and steel, the reduction in copper exports being about $16,000,000 and in iron and steel about $16,000,000.

A REFORM in which we are all interested and which the various states should interest themselves in, is a general revision of our laws. There is, as we all know, a mania for healing political sores, economic fevers and social cancers by statutory enactments. There is not an industrial class in the country, whether manufacturer or merchant, jobber or mechanic, professional man or farmer, who have not secured laws that they supposed would benefit their business. The laws in which merchants are most interested are those which treat of the collection of debts, and there is certainly need of radical reform along this line. All the "stay laws," whereby debtors suspend for an indefinite time the decree or judgment in favor of the creditor, ought to be repealed. All laws which permit appeals in foreclosure cases, from orders confirming sales, upon bonds which do not protect the creditor, but which permit the defaulting debtor to remain in possession of the land, reaping the harvest thereof, ought likewise to be repealed. The laws which intentionally make it difficult by delay and very expensive for an owner to obtain from a defaulting tenant the possession of his property ought likewise to be repealed. All laws which make it easy and cheap to appeal a cause, on account of the delay which the debtor thereby so profitably secures, because the delay is worth more to him than the expense of the appeal, ought to be obliterated from the statute books. All laws the theory and principle of which are to give to the debtor who has made default in his obligation some privilege of value, at the immediate expense of his creditor, ought to be repealed, because such laws are inherently dishonest and shamelessly reward dishonesty as though it were merit.

Whenever any class of citizens believe themselves entitled to enacted privileges their demands grow more importunate and vehement, and their dependence upon legislation increases commensurately. Such laws wither self-reliance in the individual. They make the demagogue who prescribes for the populace the doctrine of constant law-making for the cure of all the ills of the body politic appear, in the eyes of the multitude, a great statesman. Thus the American voter becomes the easy mark, the natural prey, of the pseudo patriot who poses as a public benefactor for offices and emoluments only.

THE Virginian constitutional convention, moved with horror, as we all are, at the dastardly crime of the assassin Czolgosz, has taken a hasty but injudicious step in voting to eliminate from the bill of rights the fundamental guarantee of the right of free speech. The action is the direct and natural result of the assassination of President McKinley, which undoubtedly was due in some degree to the abuse of free speech. Throughout the land there is a feeling that some definite limit should be set upon the violent speech of anarchists or upon any utterances that tend to incite ill-balanced minds to deeds of lawlessness and murder. The members of the Virginia convention, sitting amid the somber drapings of a great national sorrow, have been moved by this inevitable impulse of the hour, but they err in seeking to strike out of their constitution the guarantee of free speech placed there by Jefferson and the other statesmen who laid the foundations of the State of Virginia. A change of this kind in a state constitution can accomplish nothing for the suppression of incendiary speech beyond what is already feasible. The words which the Virginia constitution-makers have voted to eliminate are in the national bill of rights. The first amendment to the constitution of the United States provides that Congress shall make no law "abridging the freedom of speech or of the press." Thus the Virginia legislature could pass no valid law abridging free speech in any case. Any law of that kind would be unconstitutional.

Under the principles of the common law it is always possible for the authorities in any state to set a limit to license of speech at the point where it becomes an incitement to murder. This affords at least a partial check upon the propaganda of anarchism. It is no infringement of the constitution to arrest and try an anarchist who openly advocates assassination. The constitution of Illinois provides for freedom of speech on all subjects, but adds that every person shall be "responsible for the abuse of that liberty." Virginia or any other state can punish the dangerous abuse of free speech under existing laws without any change in its constitution. The courts have held repeatedly that responsibility for the abuse of a privilege is implied. Increased vigilance and sternness in enforcing this salutary limitation on free speech should be one of the results of the tragedy at Buffalo, but any attempt to withdraw the privilege itself because it has been abused would be a mistake. Freedom of speech is one of the corner-stones of our system of government. The base spirits who abuse the right thus given should be held to account, but their acts would not be a sufficient excuse for returning to the methods by which free speech is suppressed in European monarchies. Such should be the verdict of sober second thought on the part of the Virginia constitution-makers.

RANDOM SKETCHES.

BY SIDNEY ARNOLD.

THE New York Sun has culled this gem of surging verbiage from a Maryland contemporary: "The coolness of autumnal evenings are here, and the sun like a great myrrhine vase, red-veined and lustrous, goes beautifully into his vast cathedral of the west, ire-subdued and fleecily clothed in ethereal clouds. No more a perfect rose of flame with burgeoned petals he arches the brazen skies and no more from his first dawn breaks bloodily into the house of life, but with cicatrisizing and cooling face he glides chastened and with dewy eyes, to his green and purple barriers in the west, leaving to the earth the shadows of complicated glooms and cool, impleached twilights."

* * *

AN interesting case has been decided by the British courts in which a firm have recovered £100 from a competitor who libeled their machine. The defendants in this action "roasted" the plaintiffs' machine—a mechanical stoker—in a circular. The language used was decided not to be a libel on the plaintiffs, but on the machine. If the same law held in this country as in England there would be trouble for the stove salesman, who says to the hesitating dealer:

"The Kangaroo Stove Mfg. Co. are nice people, but that new Kangaroo cast cook of theirs is actually the ugliest, cheapest piece of goods I ever saw. It's bum. It's rotten! It will burn out in less than a week. It is made of scrap iron," etc.

* * *

AN echo of the steel strike is found in this little clipping from the September 5 issue of the Machinery Market, a leading London newspaper:

"It is reported that an important demand has just sprung up for steel hoops for Canada, a market that has been practically shut against us for many years. The orders that have come to hand are substantial, and the prices paid are 5 per cent higher than those that would have been readily accepted by makers quite recently. More orders are confidently looked for for the Dominioin."

It seems a shame that a market from which British manufacturers have been barred for many years should be reopened to them on account of protracted differences between employers and employed in this country. Every Canadian order for steel hoops filled by British makers in what has been to them a practically closed market, means so much money taken from the pockets of American manufacturer and workman alike. Everybody knows how the lion and bear got involved in a row over a deer they had killed, and fought until both were completely exhausted. At this stage a jackal stepped in and bore away the prize. American manufacturers and workmen have been quarreling furiously over the question of recognizing the Amalgamated Association of Iron, Steel and Tin Plate Workers, and have allowed the English manufacturer to get the benefit therefrom.

* * *

MOST merchants and clerks, particularly the latter class, rather turn up their noses at the idea of penny sales. Happily the hardware store has but little of this class of trade, the bulk of penny purchasers being children in search of the toothsome gum drop or succulent caramel. These old-time candies are still sold to some extent, but the market for them may have shifted and the candies themselves have been more or less changed. From a bakers' paper I learn that "Stick candies, for instance, once in universal demand and the staple of all stocks of candies sold for a cent now find comparatively little sale in cities or in the east. They are sold mainly in the south. The old-time jujube paste is sold in tablets or in little fancy figures so many for a cent; and good old gooseberry ball, or some equivalent for it is likely to be sold now attached to the end of a stick by which it can more conveniently be held for consumption. The cocoanut cake is still to some extent a standby, but, take them altogether, the old-time things that once constituted the whole lot are now relatively but insignificant items of an assortment that is very great." The very largest candy manufacturers include penny goods among their productions, and they are endeavoring constantly to turn out in this line something new, distinctive and taking. But when a thing has been got ready to put on the market nobody can tell with certainty in advance whether it will take or not. The children's taste is now so much educated that they know good candies, and they won't buy any other. And, as a matter of fact, these candies were never so pure and wholesome as now. But while the children insist on good qualities nobody can tell in advance what, as to peculiarities or characteristics, will please their fancy.

* * *

A LATE book that is very interesting is M. Gustav Le Bon's "The Crowd," a psychological study of crowds under modern democratic developments. The handling of crowds is one which should commend itself to police superintendents everywhere. It is certain that the occurrences at the east front and in the rotunda of the National Capitol on Tuesday bespeak a lack of police ability and foresight which is only as astonishing, considering the city and the circumstances, as it was unfortunate. A crowd of thirty or forty thousand people anxious to view the remains of the dead President in the insufficient time available for the purpose was not only the subject of no careful arrangements for its movement, but in its innocent struggles was stampeded and bruised by mounted officers riding through its jostling masses. The entrance to the rotunda and the long, broad flight of steps leading thereto were the scene of a fearful crush, which, with characteristic incidents, continued for nearly an hour. Physicians and ambulances were brought into requisition and two or three scores of people were injured, three of them seriously. The event only emphasizes a lesson many times enjoined by present day conditions—namely: the need of more foresight and real skill in the management of crowds on public occasions.

* * *

WOULD it not be a good plan to acquire the site of the Temple of Music and erect a memorial, perpetuating and honoring the dead President's memory on the spot on which he fell?

News Siftings.

The Duffy-Trowbridge Stove Mfg. Co., Hannibal, Mo., have purchased the land they will need for some additions to their stove works.

The Sun Vapor Stove Manufacturing Co., Detroit, Mich., have recently purchased a large factory, which they will use for manufacturing purposes.

An advance of 25 cents a ton in pig iron was made at Birmingham, Ala., on Tuesday by the Republic Iron and Steel Co. Other southern makers are said to have followed the advance.

The March-Brownback Stove Co., Pottstown, Pa., are making arrangements to enlarge their foundry and make room for about 15 additional molders. Their new building will be 60x55 feet in dimensions and will be situated between their foundry and cleaning department.

The Blacklock Foundry, South Pittsburg, Tenn., have, it is claimed, the largest and best equipped factory in the south for the manufacture of sad irons, country and stove hollowware, ground and unground, sugar kettles, English pots, cast iron shoe lasts and stands, kitchen and corner sinks, grates, etc.

The Bridgeport Crucible Co., Bridgeport, Conn., are manufacturers of the Champion fire clay, which is a mixture of imported German blue clay, plumbago from Ceylon and domestic fire clay. It is a fine clay for lining stoves, ranges, and furnaces, and especially for repairing and patching cracked or broken linings.

It is reported that Lyman and Geo. DeHaven, formerly with DeHaven & Co., one of the stove manufacturing concerns absorbed by the Pittsburgh Stove & Range Co., are about to embark in the stove business again, having a large interest in the new Pennsylvania Stove Co., recently organized at Ellwood City, Pa.

The Wm. T. Dust Co., 231 Brush street, Detroit, occupy a leading position among the stove repair houses of the central west. Their repairs are made with rare accuracy. This firm also carry a large stock of pipe dampers, mica, stove rods, paste, stove putty, stove knobs, etc., constantly on hand, and would be pleased to send the trade catalogue and discounts.

The American Stove Repair Works, 186-188 West Seventh street, St. Paul, Minn., handle a very complete line of stove, range and furnace repairs. It is their constant aim to give the trade just the repairs ordered with the greatest possible expedition. Their large stock of repairs enables them to fill many orders which smaller concerns are unable to fill.

The Great Western Stove Repair Co., Minneapolis, Minn., have acquired a commanding position in the stove repair trade. They handle a complete line of repairs for all stoves, and their systematic arrangement of goods and finely equipped shipping department enables them to fill all orders with a promptness that has gained them many friends in the trade.

M. Brucker, 325-331 North Lincoln street, Chicago, is the proprietor of an extensive foundry devoted to the manufacture of stove and range repairs. Besides his foundry he has exceptionally large warehouse facilities which enables him to constantly carry on hand an unusually complete assortment of repairs. This large stock enables him to fill all orders with a minimum of delay.

The Tinnerman Steel Range Co., Cleveland, O., are manufacturers of the well-known "Ohio" steel plate ranges. They also manufacture broilers, carving and steam tables, pastry ovens, and anything connected with family and hotel kitchen outfits. Their Ohio wrought steel ranges have asbestos lined flues, asbestos double bottom, double oven doors, warming closet and extension fire box for wood.

The Abram Cox Stove Co., Philadelphia, and 15-19 W. Lake street, Chicago, send us a correct reproduction of what the late President McKinley considered to be his best photograph. This picture is one they are sending to their many friends in the trade, not as an advertisement, but as a souvenir of a man who will go down to history as the central figure in the panorama of an era of greatest prosperity.

The S. M. Howes Co., 40-46 Union street, Boston, Mass., are manufacturers of the Yankee hot air damper. This damper has wood enameled handle, which cannot come off. The washer and spring cannot fall off the rod. The same size of holes are punched on each side of the pipe. The rod is made of ½-inch cold-rolled steel, and slips into the damper very smoothly. A sample will be sent to any dealer without charge.

The Ringen Stove Co., St. Louis, Mo., are manufacturers of the Quick Meal enameled and polished steel ranges. The corner tube construction of these goods gives their side and end walls a smooth, neat finish, leaving no creases. The steel plates used in the ovens are very heavy and well braced and will not warp. Every piece of the body and all the holes in the body are cut and pressed out in large dies, and consequently fit absolutely true.

The Atlas Bolt & Screw Co., Cleveland, O., send us a modest circular, about four feet square, showing the goods of the Atlas Car & Mfg. Co., of which they are proprietors. This circular gives cuts of triple deck cars for fire brick or shapes, gable bottom dump car with automatic device for releasing doors, soft mud flat cars, flanged steel foot pallets, steel frogs, side dumping clay cars, gradual automatic cars, rotary steel dump cars, heavy channel soft mud, rack cars, etc.

A. G. Brauer, 316-318 North Third street, St. Louis, Mo., has built up a large business in supplying the trade with repairs for all stoves and ranges. His business is growing larger year by year, and in his present quarters he has ample room for carrying on hand a very large volume of repairs for all leading stoves and ranges. Mr. Brauer believes in holding his trade, and when a dealer once becomes a customer of his he takes pains to see that he always remains a customer.

Among the popular steel ranges manufactured by the M & D Range Co., 96-100 Lake street, Chicago, is the American M & D, made in four sizes, 16, 18, 20 and

22 inch ovens. It has portable reservoir, white enameled inside and out or encased reservoir, as desired. The ovens are iron framed, and back flue is made of heavy cast iron. The grates used are Duplex, Dockash or wood grates, all slide out. There is a large poke door on end with or without feed pouch. This firm make all sizes of family, hotel and combination steel ranges.

The Ohio Stove Co., Portsmouth, O., have brought out an entirely new production in their Smokeless Hot Blast. It has a fire pot consisting of 30 sections, each section weighing 3 lbs., or 90 lbs. for fire pot complete. This fire pot can be removed in sections without dismantling the stove or removing a bolt. This fire pot is so constructed that the air is taken in at the draft door, circulated around the fire pot and passed into the fire through the sections, coking the fuel towards the center of the fire pot. The grate is large, anti-clinker and ball-bearing. The stove has a large ash pan and is mounted in 14 gauge steel.

BARTLETT STOVES AND RANGES.

The J. C. Bartlett Co., Pittsburg, Pa., send us a copy of their latest (also their first) catalogue. For a new concern this firm are starting out with an unusually large and fine line of stoves, ranges and furnaces. They are running their foundry at West Newton, Pa., as full as possible. They are at present employing 35 molders, and would augment their force if they could lay hands on the desired men.

The place of honor in this volume is accorded the Bartlett steel oven ranges. These ranges have a patented removable steel oven. This range has well proportioned fire box with anti-clinker lining. Either a brass coil or cast iron water front can be used. When the brass coil is used it is so arranged that it does not reduce the fire box, yet is exposed to the direct action of the fire, being a quick water heater. The grates are duplex, flues are of sheet style, very broad, and the top of the range is large with patented lids and cross pieces. The nickel trimmings on this range include towel rod, outside oven shelf, side motion kicker, swinging T shelf stands, lifter, ornamental door panel and Alaska knobs.

The Prize Argand cook, for hard or soft coal or wood, is made with outside oven shelf, kicker, sectional back wall, cut cross piece, extension back shelf, ash pan and swing hearth plate.

The Bartlett Oak, for coal, coke or wood, has a large reflector ring, which forces the heat downward, making it a great floor heater and foot warmer. It has double feed door, large ash pan, one piece air-tight ash pit, open swing cover, draw center shaking grate, check damper in feed door, nickel screw draft, Never-break nickel steel top ring, draw center shaking grate, nickel screw draft, nickel never-break foot rail, nickel feed door panel, nickel feed door latch and top ornament.

The Oak Bartlett, with smoke consuming hot blast attachment, has register screw draft, check damper in collar, nickel steel top ring and foot rail, nickel base door handle and nickel feed door panel.

The Pear Oak is a low-priced Oak with spun nickel urn, nickel foot rails, large door for coal or wood, lid on top, steel body and shaking and dumping grate.

The Bartlett gas ranges have the following special features: All cast iron body, removable cast iron oven, drop oven and roasting doors, heat indicator in oven door, removable sawed burners with cups, main top chilled on edges, nickel lever valves, nickel adjustable mixers, asbestos linings, brass coil water heater and tile ornament.

This firm carry in stock a complete line of hot plates, Blue Flame wickless oil stoves, gasolene stoves, ovens, and all appliances for summer cooking. One of these catalogues will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

THE FUEL ECONOMIZER.

W. J. Burton & Co., Detroit, Mich., are manufacturers of the fuel economizer and radiating damper, shown herewith. Fig. 1 shows the Economizer with the wings *E E* closed, making direct draft. Fig. 2 shows the wings spread, which prevents the direct draft retarding the escape and waste of heat to the chimney, and forcing increased radiation from the economizer, as well as from the stove pipe below it and from the stove. The check dampers *D D* permit the escape of smoke and just enough air through the return flues *F F* to furnish sufficient draught for the fire. The top of each damper wing has a check draft which retards the hot air and allows only enough to enter the return flue *E E* to provide the desired draft for the fire and an escape for all unconsumed gas and smoke. The fuel economizer is self-cleaning, and prevents the accumulation of soot in the chimney. It also prevents fires from overheated pipes and flues and escaping sparks. Furthermore, the additional radiation of heat makes the rooms comfortably warm in cases where difficulty has been experienced in obtaining the desired temperature.

Fuel Economizer Fig. 1.

Fuel Economizer. Fig. 2.

This economizer is made with and without legs. In the style with legs it can be used to heat any room through which the stove pipe passes, such as bathrooms, bedrooms, diningrooms, etc. The legs are easily removed when it is not desired to rest the Economizer on the floor.

The Hardware Record.

Arkansas Retail Hardware Dealers' Association.

Pres., John M. Pitman, Prescott.
1st Vice-Pres., J. F. Maxey, Ozark.
2d Vice-Pres., T. B. Stewart, Newport.
Secy-Treas., J. A. Plummer, Marianna.
Executive Com.: H. Williams, Hot Springs, J. H. Boicourt, Little Rock, J. W. Lee, Fordyce.

Chicago Retail Hardware Dealers' Association.

Pres., D. McLaughlin.
Vice-Pres., H. E. Gnadt.
Sec., G. R. Lott.
Collector, John Hora.
Treas., J. L. Smith.

Hardware Merchants' and Manufacturers' Association of Philadelphia.

Pres., Hugh McCaffrey.
Vice-Pres., Wm. C. Peters.
Sec.-Treas., T. James Fernley.
Directors, William W. Supplee, Samuel Disston, John H. Griffith, James H. Ritter, William C. Peters, Thomas Devlin, Fayette R. Plumb, Hugh McCaffrey and T. James Fernley.

Illinois Retail Hardware Dealers' Association.

Pres., H. G. Cormick, Centralia.
Vice-Pres., Wm. Bittel, Peoria.
Sec., G. R. Lott, Chicago.
Treas., F. F. Porter, Chicago.
Ex. Com., Z. T. Miller, Bloomington; W. T. Gormley, Chicago; H. N. Murphy, Galesburg; C. Mauer, East St. Louis; C. Williams, Streator; L. Babst, Kankakee.

Indiana Retail Hardware Dealers' Association.

Pres., W. P. Lewis, New Albany.
Vice-Pres., Jas. L. Hutton, Portland.
Sec. and Treas., M. L. Corey, Argos.
Members Ex. Com., I. A. Sibley, South Bend; E. M. Bush, Evansville; W. H. Weed, Vincennes.

Indian Territory Retail Hardware Association.

Pres., Geo. W. Mowbray, Tulsa.
1st Vice-Pres., J. G. Smith, Canadian
2d Vice-Pres., Fred Parkinson, Wagoner.
Sec., Dick Miller, Poteau.
Treas., Sam R. Frazee, Vinita.

Iowa Retail Hardware Dealers' Association.

Pres., W. A. McIntire, Ottumwa.
Vice-Pres., E. G. Penrose, Tama.
Ex. Com., A. C. Heyman, Miles; L. Lindenberg, Dubuque; F. S. Narum, Waukon; E. G. Penrose, Tama; W. A. McIntire, Ottumwa; L. H. Kurtz, Des Moines; H. A. Cole, Council Bluffs; Harry Vincent, Ft. Dodge, W. H. Miller, Cherokee; M. W. Keating, Afton; Jacob Seither, Keokuk.

Kansas Hardware Dealers' Ass'n.

Pres., Geo. F. Andersen, St. Marys.
Vice-Pres., Oscar Rohhr, Topeka.
Sec., J. A. Cole, Topeka.
Ex. Com., James H. Hamilton, Arkansas City; E. I. King, Logan; T. H. Kinlry, Beloit; J. M. Walters; Robinson; F. W. Bartlett, Kansas City.

Kentucky Retail Hardware and Stove Dealers' Association.

Pres., Geo. Dehler, Louisville.
1st V.-P., J. S. Ogden, Ashland.
2nd V.-P., Chas. D. Winn, Paris.
Sec., Paul Wagner, Louisville.
Asst. Sec., Wm. Dehler, Louisville.
Treas., Henry Heick, Louisville.

Michigan Hardware Association.

Pres. H. C. Minnie, Eaton Rapids.
Vice-Pres., Geo. W. Bruske, Saginaw.
Sec., Fred H. Cozzens, Detroit.
Treas., Henry C. Weber, Detroit.
Ex. Com., Samuel Winchester, Jackson; Fred S. Cook, Fowlerville; C. E. Pipp, Ostego; A. Harshaw, Delray; A. J. Scott, Marion City; James J. Potter, Alpena; Jno. W. Jochin, Ishpeming; Robt. G. Chandler, Coldwater; John Popp, Saginaw, F. S. Carlton, Calumet.

Minnesota Retail Hardware Association.

Pres., W. H. Tomlinson, LeSueur.
Vice-Pres., H. S. Cleveland, Minneapolis.
Sec., T. McCracken, Minneapolis.
Treas., G. M. Evanson, St. Peter.
Ex. Com., F. H Hunt, Red Lake Falls; B. J. Kernkamp, St. Paul; Julius Schmidt, Wabasha; W. H. Tomlinson, LeSueur; A. C. Hatch, Battle Lake; Jos. Mason, St. Peter; Chas. F. Ladner, St. Cloud; S. R. Nelson, Owatonna; E. H. Loyhed, Faribault.

Missouri Retail Stove and Hardware Dealers' Association.

Pres., B. F. Naylor, Marshall.
V.-P., Geo. R. Plowman, St. Louis.
Sec., F. N. Neudorff, St. Joseph.
Ex. Com., R. L. Hixon, Hannibal; F. A. Kannsteiner, St. Louis; J. W. Poland, Carrollton; W. A. Wingert, Kansas City.
Advisory Board, P. E. Harney Joplin; E. Stuelzing, Kansas City; J. M. Kenyon, Maitland; W. T. Shoop, Richmond; G. A. Pauly, St. Louis.

National Hardware Association.

Pres., R. W. Shapleigh, St. Louis.
Second Vice-Pres., Brace Hayden San Francisco.
Sec-Treas., T. James Fernley, Philadelphia.
Ex. Com., W. K. Belknap, Louisville; John C. Koch, Milwaukee; R. A. Kirk, St. Paul; Samuel A. Bigelow Boston; P. E. Strauss, Boston; J. D. Moore, Birmingham.

National Retail Hardware Dealers' Association.

Pres., W. P. Lewis, New Albany, Ind.
Vice-Pres., Geo. Hubbard, Flint, Mich.
Sec., M. L. Corey, Argus, Ind.
Treas., H. T. Helgeson, Milton N. D.
Ex. Com. Z. T. Miller, Bloomington, Ill.; Fred Neudorff, St. Joseph. Mo; I. A. Sibley, South Bend Ind.; H. A. Cole, Council Bluffs, Ia.; H. G. Cormick, Centralia, Ill.

North Dakota Retail Hardware Dealers' Association.

Pres., H. T. Helgesen, Milton.
Vice-Pres., H. N. Joy, Hamilton.
Treas., W. H. Pinkerton, Lakota.
Sec., C. N. Barnes, Grand Forks.
Ex. Com., H. Harrington, Fargo; W. W. Jamieson, Wahpeton; H. F. Strehlow, Casselton; I. L. Newgard, Grafton; H. B. Allen, Jamestown; H. A. Mae, Church's Ferry.

Ohio Hardware Association.

Pres., O. M. Scott, Marysville.
Vice-Pres., W. P. Bogardus, Mt. Vernon.
Cor. Sec., Geo. Gray, Coshocton.
Financial Sec., Will C. Jones, Columbus.
Treas., H. G. Woodward, Sidney.
Ex. Com., Geo. B. Meyer, Cincinnati; Geo. V. Guyton, Ada; H. F. Rahe, Cleveland; J. Rohrbacher Akron; A. H. Strome, Warsaw; Frank Winters, Lancaster; James B. Carson, Hamilton; R. Brown, Washton Court House.

Philadelphia Retail Hardware Dealers' Association.

Pres., Frank Schmidt.
Vice-Pres., Julius M. Aff.
Sec., T. B. Hendricksen.
Treas. Edward H. Shannon.
Trustees, Wm. E. Andrews, Lewis C. Claditg and Aaron I. Sanson.

St. Louis Stove Dealers' Ass'n.

Pres., F. A. Kansteiner.
First Vice-Pres., Aug. Steinmeyer.
Second Vice Pres., Aug. Gruendler.
Sec., A. F. Geschwindner.
Treas., L. J. Boehl.

Southern Hardware Jobbers' Association.

Pres., J. D. Moore, Birmingham Ala.
1st Vice-Pres., F. A. Heitman. Houston, Tex.
2d Vice-Pres., Bruce Keener Knoxville, Tenn.
Sec., C. B. Carter, Knoxville, Tenn.
Ex. Com., W. M. Crumley, Atlanta, Ga.; O. B. Barker, Lynchburg, Va.; Chas. H. Ireland, Greensboro, N. C.; B. F. Eshleman, New Orleans.

Texas Hardware Jobbers' Association.

Pres., F. A. Heitman, Houston.
1st Vice-Pres., J. C. Bering, Houston.
2d Vice-Pres., Ed. Strauss, Waco.
Sec.-Treas., Robert Eikel, Houston.
Ex. Com., Jas. Moroney, Dallas; R. F. Bell, Weatherford; W. L. Sanford, Sherman; A. E. Goeth, Austin.

Wisconsin Retail Hardware Dealers' Association.

Pres., John Hessel, Antigo.
Vice-Pres., Otto Schlafer, Appleton
Sec., C. A. Peck, Berlin.
Treas., George Leverenz, New Holstein.
Ex. Com., Henry Droegkamp, Milwaukee; Arthur Heins, Tigerton; E. H. Ramm, New London; J. Wilkie, Fond du Lac.

W. C. Fawkes is erecting a factory at Sioux City, Ia., and will engage in the manufacture of a patented rotary washing machine.

W. J. Durham has recently purchased a hardware store at Coloma Station, Wis. He has been a leading lumber dealer in that vicinity for some time past.

The Atlas Tack Co., Fairhaven, Mass., are putting up an addition 40 feet long and three stories high. which they will use exclusively for the manufacture of eyelets.

The Jos. Dixon Crucible Co., Jersey City, N. J., send us some of their handsome calendar blotters for September, showing a lad equipped with one of their pencils wending his way to the school house.

On Thursday, Sept. 12, John H. Graham & Co., 113 Chambers street, New York, assumed the agency for Coates' horse and hair clippers, manufactured by the Coates Clipper Mfg. Co., Worcester, Mass.

Herbert C. Hart, J. Hardy Krigler and Paul W. Ryder are the incorporators of the American Wire Washer Co., Jersey City, N. J., capitalized at $500,000, for the manufacture of washers from wire.

The Clipper Lawn Mower Co., Norristown, Pa., have been incorporated and are putting up a new plant having a capacity of 10,000 lawn mowers per year. This firm's progress has been very rapid from the start.

The Plume & Atwood Mfg. Co., 29 Murray street, New York, and 196 Lake street, Chicago, have a heavy demand the year round for their "Eagle" brand copper rivets and burrs. These are standard for quality, being made of a high grade of Lake Superior copper.

D. R. Sperry & Co., Batavia, Ill., manufacture a variety of high grade cast goods for the trade. Sperry's steam kettles are made from very thick metal without stay bolts and the joints are packed in such a manner as to never need repacking. While a little higher priced than some they are safe and tight.

Among the specialties manufactured for the hardware trade by the Schreiber & Conchar Mfg. Co., Dubuque, Ia., is the Star anvil and vise. This has a movable jaw with corrugations corresponding to the ones on the side of the anvil. This permits of a very close adjustment and a strong and right moving jaw.

The sporting season is on and hardware dealers all over the country are experiencing an active demand for gun repairs of all kinds. The Lee-Glass-Andreesen Hardware Co., Omaha, Neb., carry an exceptionally large line of these repairs for all leading rifles, and ship same with the utmost promptitude. The trade desiring these goods at lowest prices with a minimum of delay should write this firm for some of their trade literature. When writing them kindly add: "Saw it in THE AMERICAN ARTISAN."

The Acorn Brass Works, Chicago, are makers of the "M. & M." 450 candle power arc light, whose cheapness and efficiency is well set forth in the following testimonial this firm recently received from the Barrett Hardware Co., Joliet, Ill.: "We used six of these lamps last year and kept an accurate account of the expense. The gasolene cost us $25 and the chimneys and mantels

$20.46, making a total cost of $45.46 for six lamps for a year. We believe we have just as good light as though we had had six electric arc lights, which would have cost us $360."

PROGRAM FOR NATIONAL HARDWARE ASSOCIATION.

The forthcoming convention of the National Hardware Association, at Cleveland, will unquestionably be the most interesting and largely attended in the history of the association. The officials have been hard at work and have prepared a most interesting and comprehensive program. Glancing down this program we see that a number of questions of vital interest to the hardware jobbing trade will be discussed.

At present writing the lists of speakers in these various collocutions are naturally uncompleted, as all of those invited to take part have not as yet signified their acceptance, but enough men who are peculiarly fitted to speak on the subjects of the different collocutions have already signified their willingness to participate to make it certain that every one of these collocutions will be a success.

On Wednesday morning there will be a collocution on the topic, "How Can Manufacturers of Hardware and Kindred Lines Most Economically Distribute Their Product?" This subject, which touches on the jobbers' right to commercial existence, should bring forth some strong and forcible arguments showing the *raison d' etre* of our present distributive system.

Wednesday afternoon the delegates will discuss the subject of the "True Method of Cost." In spite of the systematic study of the cost of doing business in nearly all commercial houses, too many, even among astute and accurate business men, compute costs on false premises, and this general discussion of this proposition cannot but prove helpful.

A topic that manufacturer, jobber and retailer are alike keenly interested in will be discussed Thursday evening, when there will be a collocution on the Probable Prevalence of the Present Range of Prices." All are interested in knowing whether prices are going up or down, and the men at Cleveland can predicate the probable range of 1902 prices as far as it is within human ken to foretell the future. "The Relation of the Trade Press to Jobbing Interests" will also be discussed.

Besides these set topics, there will be ample discussion of such other business topics as are taken out of the question box.

The entertainment features include a smoker Wednesday evening, a carriage drive on Thursday afternoon and a banquet Friday.

The program is subjoined herewith:

PROGRAM.

WEDNESDAY MORNING, 9:30 A. M.

(This session is open to manufacturers, their representatives, the ladies and members of the press, and it is requested that all assemble promptly at the hour named.)

The lady visitors are requested to meet Cleveland ladies' resident committee in parlor at 10:30 a. m.

Opening remarks, President Richard W. Shapleigh.

Prayer, Rev. Dr. S. P. Sprecker.

Chorus, "America."

Address, Tendering Freedom of the City, Mayor Hon. Tom L. Johnson.

Address on behalf of the Cleveland Chamber of Commerce, by President Charles W. Pack.

Address of welcome on behalf of the manufacturers of Cleveland, S. D. Latty.

Roll call.

Reading of the minutes of the 1900 convention.

President's annual address.

Report of the secretary-treasurer.

Introduction of fraternal delegates from the Canadian Wholesale Hardware Association.

Collocution: "How Can Manufacturers of Hardware and Kindred Lines Most Economically Distribute Their Product?"

WEDNESDAY NOON.

Session of metal dealers.

Immediately after the morning session all members of the association who deal in tin plate and metals will plan to meet for a conference.

WEDNESDAY AFTERNOON.

Delegates will assemble at 2:30 sharp.
Report of executive committee.
Report of membership committee.
Report of grievance committee.
Report of fraternal relations committee.
Report of press committee.
Report of transportation committee.
Report of entertainment committee.
Report of metal committee.
Report of heavy hardware committee.
Communications.
Discussion: "True Method of Cost."
Question box.
Miscellaneous business.

WEDNESDAY EVENING, 8:00 P. M.

Smoker.

THURSDAY MORNING, 9:30 SHARP—EXECUTIVE SESSION.

Delegates will kindly assemble promptly.
Miscellaneous business.
Discussion of questions to be drawn from the question box.
Miscellaneous business.
Consideration of committee reports.

THURSDAY AFTERNOON, 2:00 O'CLOCK.

Drive.

THURSDAY EVENING, 8:00 O'CLOCK.

Open session. Manufacturers, their representatives and members of the press cordially invited.

Collocution: "Outlook for the Approaching Year; Will Present Range of Prices Probably Prevail?"

Collocution: "Trade Papers: Their Relation to Jobbing Interests."

FRIDAY MORNING, 9:30 O'CLOCK.

Delegates are requested to report promptly.
Miscellaneous business.
Election of officers.
Discussion.
Arranging seat of next convention.
Miscellaneous business.

FRIDAY AFTERNOON, 2:00 O'CLOCK.

Introduction and installation of officers.

AN INVITATION TO MANUFACTURERS.

T. James Fernley, secretary of the National Hardware Association, has sent out the following invitation to the hardware manufacturers to be present at the forthcoming Cleveland convention of this organization:

"The time for the seventh annual convention of the National Hardware Association is rapidly approaching, as perhaps you are aware; same is to be held in the city of Cleveland, O., October 9, 10 and 11, the official headquarters being at the Hotel Hollenden.

"It is not the policy of our association to send out engraved invitations, and yet, as you know, manufac-

turers and their representatives have always been made welcome, and there will be no exception to the rule at the time of our next convention.

"After the adjournment a large number of the delegates and their friends will visit the Pan-American Exposition. We have made arrangements with the Hotel Gibbs, situated on Elmwood avenue, and the Brendtford Apartments, situated at corner of Potomac avenue and Brandtford Place, Buffalo, to accommodate those who may visit the exposition, after the adjournment of our convention.

"Arrangements have been made with the railroad companies to allow regular convention rates to all who attend. When purchasing tickets it will be necessary to ask for a certificate, stating that the purchaser is about to attend the convention of the National Hardware Association. These certificates will permit the purchaser to return to point at which ticket is purchased for one-third the fare paid in going from that point to Cleveland, and will be good until October 19.

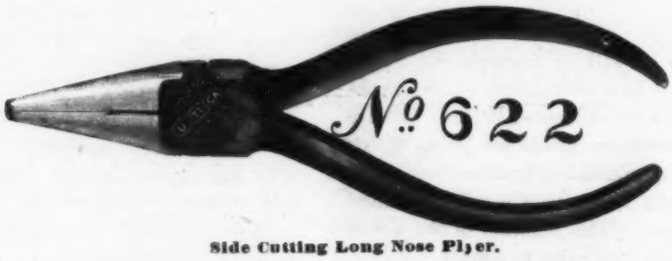
"At least two sessions of the convention will be open to you, and the social features will be arranged in such a manner as you may also participate on the same basis as the convention delegates.

"As soon as the official program is issued, the writer will take a great deal of pleasure in sending you a copy."

SIDE CUTTING LONG NOSE PLYER.

The Smith & Hemenway Co., 296 Broadway, New York, are manufacturers of the side cutting long nose plyer, shown in the accompanying cut. This plyer has a long, narrow nose, and is of use in deep, narrow quarters in which an ordinary tool will not work. It will also do the work of a regular tool. It is convenient to carry. Every tool is carefully tested at the factory before sending out. It can be used by telephone manufacturers, machinists, engineers, electricians and jewelers.

This firm have a unique and up-to-date catalogue, which they style the "Green Book of Hardware Specialties," which will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."



Side Cutting Long Nose Plyer.

FAVORS A CHICAGO HARDWARE CLUB.

TO THE AMERICAN ARTISAN.

I am glad to note that the idea of a Chicago Hardware Club is again being agitated. I see no reason why such a club, with a membership of at least 250, could not be formed in a center where hardware manufacturers, manufacturers' agents and jobbers are so well represented as in Chicago. It is needless to state that the New York Hardware Club is a most conspicuous success, socially and financially, and if the enterprising hardware men in Chicago will follow their example an equally successful organization can be started in Chicago. Such a club would be a special attraction to the visitors to Chicago, as at present there is no place where they can meet the trade socially. I am anxious to see this project kept up, as it is certainly a good one.

——, Ohio, Sept. 16, 1901. "MANUFACTURER".

TAKES A CONSERVATIVE VIEW.

TO THE AMERICAN ARTISAN.

I read with interest the different views as to the desirability of forming a hardware club, given in your issue of Sept. 7. I have discussed this matter with friends of mine, and while I do not feel like throwing cold water on any worthy project that would help the hardware trade in our city, still I must state that I cannot see how the advocates of this new club can get away from the views of a Chicago hardware jobber, quoted in your paper, in which he points out the vital difference between New York club life and Chicago club life. The reason why the New York Hardware Club has prospered so magnificently is not because it is a hardware club—it is, in fact, a hardware organization in name only—but because it is one of the few down-town men's lunch clubs in that city. There are plenty of men in the New York Hardware Club who never went in search of a left-handed monkey wrench, but who patronize it because it is a good lunch club. If a Chicago Hardware Club was started it would be in a field where there were twenty other down-town lunch clubs, all of which had a membership among hardware men. Consequently, the fact that the New York Hardware Club has been a success is no criterion to go by in the formation of a Chicago Hardware Club. "X."

Chicago, Sept. 18, 1901.

FAVORS A HARDWARE CLUB.

TO THE AMERICAN ARTISAN.

I am told that there is a scheme on foot to get up a Chicago Hardware Club. I believe that a canvass of the western trade will show that every manufacturer of stoves and hardware, jobber of hardware, stoves, metals, etc., manufacturers' agent, etc., would lend such a club a helping hand. There have been, from time to time, spasmodic efforts to form a local hardware club without much success. The time has come for all to pull together and do what they can to make such an organization a success. "WESTERN."

Chicago, Sept. 16, 1901.

LEGAL BATTLE IS NOW ON.

The Simeon L. & George H. Rogers Co., Hartford, Conn., manufacturers of silver plated ware, are sending a letter to the trade, under cover of Sept. 4, which reads as follows:

"The 'Trust' has secured a preliminary injunction against us in the U. S. Circuit Court, and we are restrained from using the name 'Rogers' or 'Rogers Bros.' on silver-plated ware until a trial is had upon the merits of the case. In January, 1901, Simeon L. Rogers and George H. Rogers, sons of Simeon S. Rogers, who was one of the founders of the silver-plated ware business that gave reputation to the name, began business in Hartford, Conn., as officers in a corporation named 'Simeon L. & George H. Rogers Co.,' and used the name 'Rogers' and 'Rogers Bros.' on silver-plated ware with various prefixes and suffixes to distinguish its goods from all others.

"We gave full notice that we were 'not in the trust' and had no connection with any other Rogers Co. or trade marks, and carefully emphasized the fact by means of circulars to the trade, by advertisements, and labels on the goods. Of this the court said: 'So far as it has asserted that its goods were not those of any other company, but wrere made by itself its statements are worthy of commendation.' We shall continue in business and by decision of the court can advertise under and make and sell our goods with our full name, Simeon L. & George H. Rogers Co. This we shall do, and our goods will be made of the same high standard as before. Our manager was the superintendent of the Wm. Rogers Mfg. Co., and worked for it over twenty-five years up to 1901. We warrant our goods to be of full standard quality surpassed by none. If you wish to be independent of the trust in silverware you can do so and get from us as good ware as any that it makes.

"We make our own blanks for spoons and forks and control and guarantee the quality and finish of these goods. We ask of the trade that measure of its patronage which the merits of our goods, fair and equal treatment of customers, living prices, and their opposition to 'Trust' methods may permit."

THEIR FALL CATALOGUE.

The Bindley Hardware Co., Seventh avenue and Grant street, Pittsburg, Pa., send us their forty-second semi-annual catalogue, showing an interesting line of gas and oil stoves and hardware of a character suitable for fall trade. Among the gas stoves they show is the Pittsburgh, which has been materially improved. New and important features are the removal of the outlet pipe from the bottom of the drum in the rear of the stove to the top, and the placing of two partitions in the drum that divide it perpendicularly into three compartments which run from the top to within three inches of the bottom. At the top of the partitions there are small openings that permit a small portion of the products of combustion to pass direct to the outlet flue. The goods shown in this volume comprise up-to-date specialties in all lines of hardware, such as the Acme stove pipe, Star extension fire back, Champion stove clay, Keystone door mats, bobeches, gas spuds, New Connecticut food choppers, Enterprise food choppers, Horton rotary washers, Ely's Dandy mop wringers, Hunter's sifters, J. H. Eller & Co.'s oil cans, Oatman's handy hoops, X-Ray coffee mills, rifles, shot guns, harmonicas, canvas hunting coats, registers and ventilators. One of these catalogues will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

BUSINESS CHANGES.

NEW FIRMS.

Mt. Zion, Ind.—Frank C. Huffman.
Garretson, S. D.—T. Arneson and K. Larson.
Conrad, Iowa.—M. A. Trumbull.
Hastings, Mich.—Fred Spangemacher.
Beloit, Wis.—R. C. Murdock.
Allentown, Pa.—Ritter & Miller.
Bennetsville, S. C.—The Excelsior Hardware Co.
Bismarck, N. D.—A. B. Marshall.
Columbus, Ohio.—Dean Hardware Co.
Fitzgerald, Ga.—Da Lee-Johnson Hardware Co.
Houston, Tex.—Ewing-Saigling Hardware Co.
Madison, Wis.—Stephenson & Studeman.
Mobile, Ala.—Dorgan-Goodbrad Hardware Co.
Mobile, Ala.—Mobile Hardware Co.
Muskogee, I. T.—E. R. Durfey.
Plevna, Kan.—Abbott & Hinshaw.
Portland, Ore.—The Pier Hardware Co.
Renton, Wash.—Robert Wood.
Ripon, Wis.—The Ripon Hardware Co.
Rockmart, Ga.—G. F. Morgan.
Tomahawk, Wis.—The Northern Hardware Co.

CHANGES.

Sterling, Ill.—John C. Meister, who recently sold his interest in the Locust street hardware store to Mr. Seely, is now sole proprietor, having purchased the entire store from Mr. Seely.

South Shore, S. D.—Frink & Colfix succeed J. L. Rickel.

Hampshire, Ill.—H. Hattendorf buys interest of Fred Clausing.

Creston, Ill.—Fred Gale succeeds L. H. Valentine.

Linda, Wash.—Rawlings & Newland will be succeeded, October 1, by Neilson Bros.

Watertown, S. D.—Arthur Poulson has purchased the hardware interest of John Keenan.

Trenton, Mo.—C. L. Berry and T. N. Witten succeed R. Coon.

Ellsworth, Ill.—Messrs. Lander & Turner dissolve partnership.

Alamosa, Colo.—Fred M. Scheck succeeds J. A. Johnston, of Tomlins & Johnston.

Chenoa, Ill.—O. A. Sweet and F. N. Munsell succeed Meschal & Fisk.

Henderson, Ky.—Norris, Lockett & White dissolve partnership.

Colchester, Ill.—Joseph Carson succeeds T. J. Bowman.

De Queen, Ark.—Curfman & Tobin dissolve.

Royse City, Tex.—W. A. Taylor & Co. succeed Miller Bros.

Murfreesboro, Tenn.—Hudson & Nuckols succeed Hudson & Co.

Mena, Ark.—W. E. Watkins & Bro. succeed W. E. Watkins.

Hopkinsville, Ky.—A. J. Meador succeeds Thompson & Bassett.

Elkton, Ky.—Miller & Sullivan succeed Cartwright Bros.

Silverton, Tex.—The Silverton Mercantile Co. succeeds Paul Gerdes & Co.

Campbell, Tex.—Roach & Christian succeed J. D. Roach & Co.

Winters, Tex.—The Murray Hardware Co. succeed Murray & Hall.

Maryville, Tenn.—D. R. Goddard & Co. are reported the successors of Frow & Goddard.

Sisterville, W. Va.—Sisterville Hardware Co succeeds W. L. Gorham.

Clarksville, Tenn.—G. D. Crouch will add a complete stock of hardware to his present business.

Blaine, Me.—G. W. Young has sold his stock of hardware to Frank Russell.

Bessemer, Ala.—The J. A. Lewis Hardware Co. succeeds J. R. Day.

Houston, Tex.—The Houston Hardware Co. succeed H. H. Holtkamp.

Mt. Pleasant, Pa.—James K. Husband succeeds Samuel Schenck.

Poughkeepsie, N. Y.—The Van Benschoten Hardware Co. succeeds Charles E. Schou.

Waitsfield, Vt.—F. J. Eaton, of Eaton & Savage, has sold out his interest in the business to O. M. Eaton.

Westmoreland, Kan.—A. H. Reed has bought the interest of his partner, W. E. Sweet.

STOPPAGES.

Ripley, Tenn.—C. H. Brooks.

Noble, Ga.—It is reported that T. J. Gilmer has sold his grocery and hardware stock.

Knoxville, Tenn.—It is stated that W. A. Schuyler will discontinue his hardware business.

Clarksville, Tenn.—After January 1, J. M. Bowling will discontinue his hardware business.

Waxahachie, Tex.—The hardware business of W. A. Calfee is advertised for sale.

Adairsville, Ky.—R. C. Mason assigns.

Shippensburg, Pa.—William A. Cox.

Faith, Minn.—Charles Wroodle.

Terrill, Iowa—W. P. Ferguson.

Portsmouth, Iowa.—John Korth Jr.

MISCELLANEOUS.

Edmore, N. D.—H. J. Haskamp builds.

Bath, S. D.—It is reported that the junior member of the firm of Clark & Kerr is dead.

Halstad, Minn.—J. H. Nokken, a hardware dealer, contemplates moving to Litchville, N. D.

Nerstrand, Minn.—A line of implements has been added to the hardware store of Lechelt & Co.

West Brook, Minn.—A line of clothing has been added to the firm of Wild & Spalding, hardware and machinery dealers.

Watkins, Minn.—P. B. Weber, hardware and furniture dealer, contemplates admitting a partner into his business.

Morris, Minn.—The crockery stock of Pearce & McDonald will be disposed of while they will continue in the hardware business.

Reynolds, N. D.—Burglars recently looted the hardware store of L. Schulstad.

Britt, S. D.—The store of S. S. Lawrence, hardware dealer, and L. E. Aplin, dry goods dealer, was destroyed by fire.

Gebo, Mont.—A line of groceries and dry goods has been added to the hardware stock of the Howard Lumber & Hardware Co.

Seattle, Wash.—N. H. Thedinga, fire. Insured.

Baltimore, Md.—John W. Russell, 2220 Boston street, burglarized. Loss, $75.

Buffalo, N. Y.—John F. Smith, burglarized.

Carlisle, Pa.—Thos. E. Myers & Co., burglarized. Loss $85.

Chicago, Ill.—Van Denberg & Pronger, burglarized. Cutlery.

Durham, N. C.—A. E. Lloyd & Co., burglarized. Revolvers and cutlery.

Philadelphia, Pa.—Carl Snyder, 127 S. 10th street, burglarized. Loss, $375.

Table Rock, Neb.—A. R. Kovanda, burglarized. Pocket knives and razors.

Tamaqua, Pa.—Beddall & Short, burglarized. Loss, $100.

Toledo, O.—Neipp & Emmert, burglarized. Revolvers, etc.

Toledo, O.—Shiefly & Burdick, 2011 Adams street, burglarized. Cutlery.

Turner's Falls, Mass.—F. I. Webster, burglarized. Small loss.

Greeley, Neb.—M. Murphy builds.

Greensburg, Pa.—Temple & Son build an addition.

Britton, S. D.—S. S. Lawrence, fire.

Carlinville, Ill.—J. F. Shapier moves.

Britton, S. D.—Weidman & Ingersoll, fire.

Birmingham, Ala.—Moore & Handley Hardware Co.

Blaine, Me.—Geo. W. Young, fire. Loss, $6,500.

Boonville, Mo.—Joseph Leiber, fire. Loss, $12,000; insurance, $500.

Camden, N. Y.—Smith & Becker, fire.

Colebrook, N. H.—Colebrook Hardware Co, fire.

Dallas Center, Ia.—Grant McLain, fire. Insured.

Dansville, N. Y.—Geo. W. Peck Co., fire.

Edwardsville, Ill.—D. A. Keller & Co., fire. Loss, $15,000.

Enid, Okla.—Gensman Bros., fire. Loss, $35,000; insurance, $10,000.

Gananoque, Canada.—J. Brathwaite, fire. Loss, $5,000; fully insured.

Garrett, Ind.—Teeters & Little, fire. Loss, $25,000.

Hampton, Neb.—C. Newman, fire.

Jeromeville, O.—Kahie & Ewing, fire.

Lincoln, Neb.—W. H. Ward, fire.

Lone Rock, Wis.—O. Beckwith, fire. Loss, $6,000; insurance, $2,500.

Nesquehoning, Pa.—William H. Bond, fire. Loss, $2,000.

Oakland, I. T.—L. B. Huntley fire. Insured for $2,000.

Ottawa, Ont.—W. Howe, fire. Partially insured.

Riceville, Ia.—Hancock's Hardware store, fire. Small insurance.

Ripon, Wis.—L. G. Bartlett, fire. Loss, $600; fully insured.

Rosalia, Wash.—D. F. Anderson & Son, fire. Loss, $15,000; insurance, $8,500.

Wickliffe, Ky.—Prentice & Co., fire. Loss, $4,000; partially insured.

Great Falls, Mont.—The Murphy-Maclay Hardware Co. build an addition.

Daugherty, Iowa.—Moran & Co., fire. Loss, $10,000.

Daugherty, Iowa.—J. V. Kelly, fire. Loss, $3,000; insurance, $1,500.

Anna, Ill.—E. G. Kerth & Co. move into new quarters.

Quincy, Fla.—N. W. Deering has advertised for a purchaser.

Bellaire, Mich.—F. D. Flye is having new foundation walls constructed for the erection of a new two-story brick block, to take the place of his hardware building recently burned.

Crowley, La.—The brick work on A. Jumonville's new building on the avenue has been completed.

Gainesville, Tex.—Cleaves & Son move.

Grafton, Ill.—John N. Eastman & Co. have fitted up an additional room to their store and stocked it with hardware and tinware.

Guthrie, Okla.—Witter Bros. move.

Ishpeming, Mich.—E. E. Swift Hardware Co. move to Houghton.

Johnstown, N. Y.—Frank Miller improves.

Omro, Wis.—Root Bros. move.

Whitman, Mass.—E. E. Bassett has added a line of hardware to his paint business.

Bristol, Tenn.—Jas. W. Mort, burglarized. Loss, pistols, etc.

Gardiner, Me.—Cross & Robinson, burglarized. Loss, $400.

Paducah, Ky.—Geo. O. Hart & Sons, burglarized. Loss, $300.

Pottstown, Pa.—Van Buskirk Bros., burglarized. Loss, $100.

Punxatawney, Pa.—Punxatawney Hardware Co., burglarized. Loss, $200.

Schuylkill Haven, Pa.—Sausser Bros., burglarized. Loss, $50.

Heating and Ventilating.

Trinity College, Durham, N. C., is about to put in a heating plant to cost from $15,000 to $20,000.

S. E. Abbey, T. A. Conklin Jr. and W. Bigelow are the incorporators of the Carolina Plumbing & Heating Co., Charlotte, N. C., capitalized at $25,000.

H. N. Kirk, Keene, N. H., sends us a circular calling attention to the Keene combination hose pipe, designed for flushing out sink spouts. While it will not remove knives, forks, etc., it will force dish cloths, vegetable matter, grease, etc., along to the main sewer if the pipe is free from poor joints or is not jammed.

Sweet Bros. are a new firm of Dowagiac, Mich., plumbing, heating and lighting men and sheet metal workers, who started in business Sept. 16. Wm. E. Sweet and Chas. E. Sweet are the partners in this concern. They will be pleased to receive catalogues and other trade literature from manufacturers in these lines.

The Utica Heater Co., Utica, N. Y., manufacturers of the well-known Superior furnaces and Utica heaters, report an exceptionally busy season, having to date nearly doubled the entire business of last year. Their large plant is being run to its fullest capacity to keep pace with the demand made for this company's extensive line of heating apparatus. Aside from warm air furnaces and heaters, the Utica Heater Co. also manufacture the Auburn round boilers for steam and hot water, and the Utica Imperial round sectional steam and hot water boilers.

The Henry & Scheible Co., Cleveland, O., send us a little catalogue showing their line of registers, ventilators, etc. Their line of registers include japanned black or white; nickel plated; electro plated in brass, bronze or copper and white porcelain enamel; bronzed to imitate gold, silver, copper or bronze; Moorish design; solid brass or bronze metal; square convex registers; convex circular top registers, and round registers. This firm are also manufacturers of the Moncrief furnace with Moncrief duplex grate, large radiating surface, double fire pot, large grate surface and top return flue.

METRIC WEIGHTS AND MEASURES.

All the world powers except the United States, Great Britain and Russia have adopted the metric system of weights and measures. The Canadian Engineer, published at Toronto, Canada, is doing what it can to induce the Canadian government to adopt this system, and in order that the principles of this new system may be fully understood they have prepared a chart, which they are mailing on receipt of 10 cents, which shows how the metric measure of volume, capacity area and weight are all so related to the measures of length that one affords a clue to the other and makes the entire system wonderfully simple.

The Standard Iron & Steel Co. is a new concern who will build a mill at New Castle, Pa., for rolling refined iron bars and iron sheets.

TESTS OF RADIATORS WITH SUPERHEATED STEAM.

(Extracts from a paper presented to the American Society of Heating and Ventilating Engineers by Prof. R. C. Carpenter.)

In making a series of radiator tests during the spring of 1901, superheated steam was inadvertently used in several cases. To my surprise the capacity for heat transmission of the radiator was thereby reduced. I did not have sufficient time to investigate the phenomena exhaustively but the data which were taken seemed to be of such general interest that I have concluded to present the results of the test to the society for discussion.

The radiators tested were named No. 1 and No. 2. No. 1 was 18 inches in height and contained 10 sections, each 11 inches wide, constructed so as to have very little air space between the sections, the least distance between sections being ¼ inch. No. 2 was 38 inches in height and contained 10 sections, each 7 inches wide and spaced so as to give abundant room for air currents around the sections; the least distance between sections was ¾ inch. The radiators were both tested with steam, which was taken through a single inlet. No. 1 was of the hot-water type with top connection as well as bottom connection of the sections, whereas No. 2 was of the steam-heating type with no top connection of the sections.

The radiators were arranged for testing on a platform having an elevation about 2 feet above the floor and sufficient for inserting vessels underneath the radiators to obtain the water of condensation. Steam for the test was obtained from a high-pressure main which passed through a steam separator to remove any free water, thence through a reducing valve set to maintain the desired pressure, thence to a receiver located between the two radiators. From the receiver a pipe was led to each inlet of the radiator. The water of condensation was taken off at the inlet end and permitted to drip into a receiver provided with a water glass arranged in such a manner that the water in the receiver could be held at a uniform level, which was about one foot below the bottom of the radiator. The water of condensation was cooled before being weighed. Temperatures were taken of the outside air and at several places of the compartment in which the test was conducted. Temperatures were also taken of condensed steam and of the surface of the radiator on two sides. In taking the temperature of the surface of the radiator the bulb of a thermometer was fastened against the metallic wall of the radiator and protected from external radiation by hair felt. This test does not give the temperature of the radiator because of the cooling of the thermometer bulb, but it gave useful information as to the distribution of heat in the radiator. The two radiators tested were kept at a distance of about 6 feet and the effects of radiation from one to the other was counteracted by a partition midway between the two. The radiators were shielded from any currents of air and the room was kept, as nearly as the outside conditions would permit, at a temperature of 70 degrees.

The writer has observed in previous tests of radia-

tors that when testing a high and a low radiator, the low radiator would always show a greater heat transmission for the same surface exposed. In these tests we have an apparent exception to this rule, as it will be noted that the higher radiator gave a higher rate of heat transmission per square foot of surface than the lower. An examination, however, of the dimensions of the radiators will show that the air space surrounding the sections in the low radiator was very much less than in the high. While I have not an accurate measurement of air space it is probable that the air space per unit of surface in the low was about four times that in the high radiator. The test is interesting as showing that by properly proportioning the air spaces between the sections, the heat transmitted per unit of surface in high or low radiators may be equalized. This also shows that the air space doubtless plays an important office in carrying away the heat from the radiators.

Expressing the final results in terms of the number of heat units transmitted per hour per square foot per degree, we have the following results as applicable to the case where there was either no superheating of the steam or only a very slight amount. These results indicate a substantial uniformity in heat transmission

Steam Pressure, lbs.	Superheat, Degrees	B. T. U. per squ. ft. per hour per degree. Radiator No. 1.	Radiator No. 2.
2	0	1.48	1.83
2	0.13	1.50	1.92
10	0.30	1.50	1.91

per degree difference of temperature from 2 pounds to 10 pounds.

The process of reducing the pressure wire drew the steam, thus liberating a considerable amount of heat energy which expended itself in superheating the steam. The effect of liberating this heat energy without work was to superheat the steam and this, contrary to our expectations, was to reduce the amount of heat transmitted. Thus with radiator No. 1 with no superheat the heat transmission per hour per square foot of surface per degree, which we will term hereafter the heat transmission, was 1.48 British thermal units; with about 36 degrees superheat this was reduced to 1.16 British thermal units. With radiator No. 2 there was a corresponding reduction from 1.83 to 1.41 British thermal units. With 5 pounds of steam pressure and when steam was superheated 13.1 degrees, the heat transmission was 1.41 for the low radiator and 1.74 British thermal units for the high. When the degree of superheat was increased to 24.1 degrees the heat transmission of the low radiator fell to 1.23 British thermal units and that of the high to 1.45 British thermal units. With 10 pounds of steam pressure the heat transmission for 0.3 degree of superheat was for the low radiator 1.5 and for the high radiator 1.9. When the steam was superheated to 26.7 degrees the heat transmission fell to 1.24 for the low radiator and 1.62 for the high radiator. Several check runs were made, the results of which show a variation of less than 2 per cent. This run is given uncorrected, although the results are probably 2 or 3 per cent high because of some condition which could not be determined. Possibly the radiator may have been in a slight draft of air, although measures were taken to prevent such an occurrence if possible.

The conclusions from the tests made with superheated steam would be that it is a poor medium to employ for heating purposes, the reason doubtless being that superheated steam is much more nearly like a perfect gas in its nature than a saturated vapor, and when in this condition parts with its heat much less readily than saturated or wet steam. It is not probable that the amount of superheat was sufficient in any of the cases described to fill the entire radiator with steam of this character, and this, I take it, accounts for the continued falling off in heat transmission as the degree of superheat increased. The accompanying table gives the general results of the radiator tests.

GENERAL RESULTS OF RADIATOR TESTS..

Radiator No. 1: height, 18 inches; measured surface, 38.6 square feet.

Pressure lbs.	Temp. Air degrees.	Temp. steam degrees.	Degree superheat.	B. T. U. per hr. per sq. ft. per deg diff.	Lbs. of steam cond. per hr.
2	71.3	217.0	0	1.48	8.33
2	77.1	217.1	.13	1.50	8.13
2	74.0	252.8	35.83	1.16	7.88
5	70.2	239.0	13.10	1.41	9.18
5	75.5	252.7	24.10	1.23	8.38
10	72.5	264.7	26.70	1.24	9.18
10	75.8	238.4	.30	1.50	9.25
30	74.1	274.5	1.10	1.83	14.07

Radiator No. 2: height, 38 inches; measured surface, 49.1 square feet.

2	73.5	217.0	0	1.83	13.00
2	80.3	217.1	.13	1.92	12.75
2	77.0	252.8	35.83	1.41	12.25
5	73.5	239.0	13.10	1.74	14.16
5	76.7	252.7	24.10	1.45	12.63
10	74.2	264.7	26.70	1.62	15.00
10	77.3	238.4	.30	1.91	15.16
30	76.8	274.5	1.10	1.97	18.94

STEEL WORKS IN JARAN.

In the course of the reports from abroad, the current issue of the "Board of Trade Journal" quotes from the "Japan Times" an article describing the Imperial Steel Factory at Wakamatsu. An interesting extract is the following: "The works were founded in April, 1900, and commenced in February last the manufacture of pig iron, and in May the work of manufacturing (about 40 tons a day) Siemens steel. Two of the five rolling mill plants have been completed, the production of medium and small rails and plates was started towards the end of June. The other plant will be completed by the end of September, and the manufacture of large rails and other ware will be started at once. It was estimated that 90,000 to 100,000 tons of steel could be produced in a year when all the arrangements shall have been completed and the operations can be carried out to their full extent. Next year the factory will use iron obtained from Akiya, in Echigo, where ore has been found stated to be equal in quality to the best imported mineral."

Tinshop.

FOUR-PIECE SPIRAL ELBOW PATTERN.

TO THE AMERICAN ARTISAN.

I submit the following method to obtain the pattern for a four-piece spiral elbow. This pattern is the same as used for the common four-piece elbow. The first step to be taken is to lay out the side elevation for a four-piece elbow as usually drawn. This is shown by lines A to C and B to C. Draw the semicircle D to E; divide this into four equal parts. Erect lines from the points where these divisions occur, as shown by the numerals 1 to 3 and letters D to E. The dotted lines show where the seam occurs in the finished elbow as desired. The solid division lines show where the seams occur in a regular four-pieced elbow and are carried over to A or front elevation, showing how the common elbow appears from that point of view. This

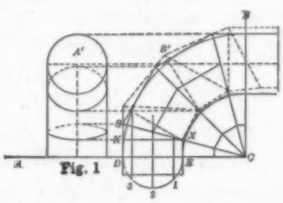


Fig. 1

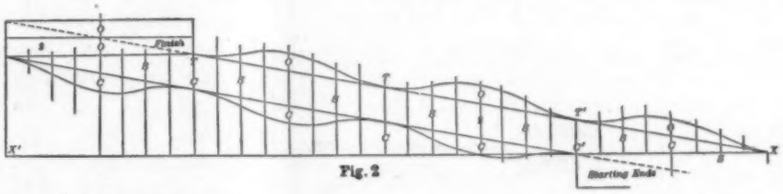


Fig. 2

completes the preliminary drawings for the pattern. The stretch-out or actual pattern is shown by Fig. 2.

To lay this out, instead of proceeding as in the ordinary way for the common elbow, this stretch-out, in order to make the circuit around the circumferences, must be made in the shape of a spiral. For this reason the part C to T, which is equal in width to the throat or inner flat part of a section of the common elbow, must be raised into the position as shown. Draw a line cutting point X and T equal in length as demanded by the circumference of the four divisions as shown. The lines on which the distances for the correct pitch of the miter line are set off are drawn at right angles to the base line X to X. The distances contained between the curve line from X to Y and the straight line X to Y are taken for each one from the distances contained between the space X, S and R of Fig. 1, B, each line corresponding in length to the added slant height which the altered position imposes on it. That is but very little in as small a figure as the drawing gives. The width of the throat space is completely drawn out as the pattern shows. The rectangular-shaped ends are necessary, so that when the elbow is formed to shape a straight piece of pipe or end of the elbow is provided so that the same will fit and can readily be connected to any piece of pipe which fits it. This pattern can be joined together with the usual joint as used for elbow work, made with a turning machine. "SPIRAL."

Weyalusing, Wis., Sept. 10, 1901.

DESERVE PERUSAL.

Frank D. Burgess, Waupaca, Wis., writes, Sept. 15, 1901: "The House Warming Manual and the Hot Water Manual should be well read by every tinner and plumber."

STEEL STRIKE IS OVER.

A conference between representatives of the United States Steel Corporation and the Amalgamated Association of Iron, Steel and Tin Plate Workers was held in the Battery Park Building, New York city, on Sept. 14, and the strike, which was begun on June 30 last was declared off. Those present at this conference were President Shaffer, M. J. Davis, M. T. Tighe and John Pierce, of the Amalgamated Association, and D. F. Reid, president of the American Tin Plate Co.; Warner Arms, M. McMurtry, president American Sheet Steel Co.; W. T. Graham, first vice president American Tin Plate Co.; M. W. Leeds, fourth vice president American Tin Plate Co., and W. E. Corey, president of the Carnegie Co.

The conclusion of the strike means a complete victory for the steel combine. The basis of agreement in substance is that the corporation will hereafter conduct all plants now in operation as non-union. The loss to the Amalgamated Association is severe, as the steel corporation has succeeded in starting a large number of mills that responded to President Shaffer's general strike order. In other words, the strikers retain only the mills that they have been able to keep closed altogether.

GASOLENE FIRE POTS AND TORCHES.

The Clayton & Lambert Mfg. Co., Detroit, Mich., send us a little booklet, entitled "Gasolene Fire Pots and Torches." This book is illustrated with a variety of interesting cuts and shows in detail the various parts of these fire pots. It also shows this firm's various goods, which include the No. 5 fire pot, No. 6 fire pot, No. 7 or canners' fire pot, No. 15 fire pot, No. 1 torch, No. 2 or "All Right" torch, No. 3 torch, No. 4 torch, No. 5 or "Twin" torch, No. 7 torch, Baby No. 8 torch, No. 9 torch, No. 10 torch, No. 11 alcohol torch, No. 12 torch, No. 13 torch, No. 14 torch, No. 15 torch, No. 16 torch, No. 17 torch, No. 18 torch, No. 19 torch, No. 20 torch, No. 21 candle, No. 22 candle, No. 23 candle, No. 24 torch, No. 25 torch, No. 26 torch, No. 27 torch, No. 28 torch, No. 29 torch and No. 30 torch. This large variety of fire pots, torches and candles gives the tinner a very wide option, both as to style and price. This firm would be pleased to send the trade one of these booklets on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

WANTS OLD TINKS "TO OPEN UP."

TO THE AMERICAN ARTISAN.

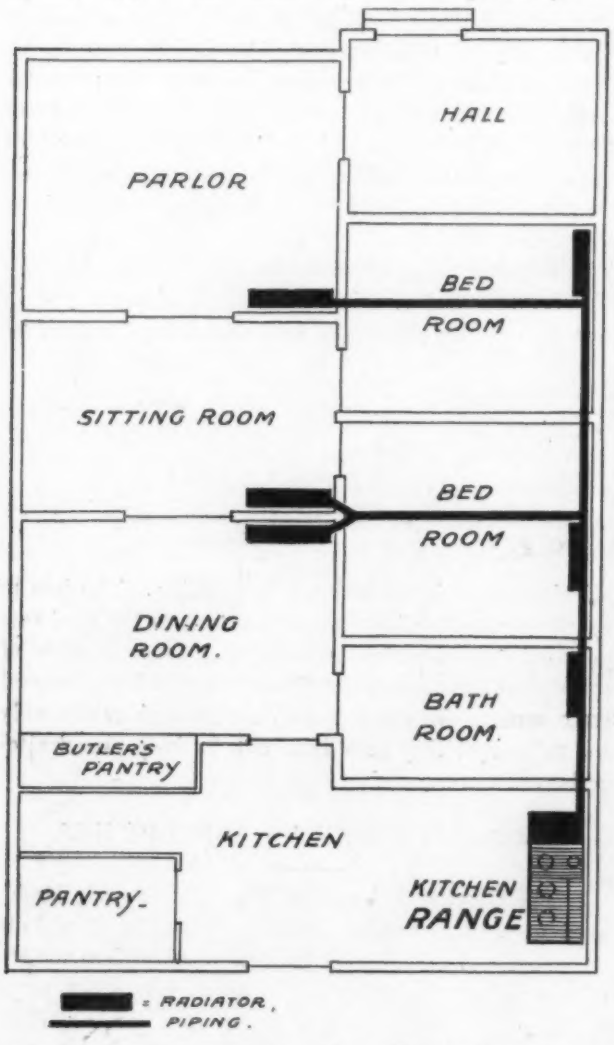
I like THE AMERICAN ARTISAN. It is O. K. I wish some of the old tinks would open up and tell us how to go at it. They cannot be with us always.

Hancock, Ia., Sept. 13, 1901. H. C. BAIR.

HEATING BY HOT WATER FROM KITCHEN BOILER.

TO THE AMERICAN ARTISAN.

A customer of mine is anxious to have a hot water system installed like the one shown herewith. Will some of your readers tell me if it will work, and if not, why? The house is a one-story brick, sub-



stantially built, and I have located the places where I thought I would place radiators. "FITTER."

Chicago, Sept. 9, 1901.

NOTES AND QUERIES.

TOY PLANES.

From A. E. J., Rome, Miss.

Where can I buy toy planes?

Ans.—Ohio Tool Co., Columbus, O.

POCKET ALCOHOL STOVE.

From "Tink," Newburyport, Mass.

Where can I buy a small pocket alcohol stove?

Ans.—Thos. W. Houchin Co., 67 Park Place, New York.

CASH CARRIERS.

From E. S. M., McGregor, Ia.

Where can I buy cash carriers?

Ans.—Estate of E. A. Burgess, New Haven, Conn.; Lamson Consolidated Store Service Co., 89 State street, Boston, Mass.; Jos. Starr, New London, Conn.; Tucker & Dorseyl Mfg. Co., Indianapolis, Ind.

CASH REGISTERS.

From E. S. M. McGregor, Ia.

Where can I buy cash registers?

Ans.—American Mfg. Co., Waynesboro, Pa.; Hough Cash Recorder Co., Indian Orchard, Mass.; Model Mfg. Co. of Penn., 195 Huntington street, Philadelphia, Pa.; Samuel Nafew Co., 392 Broadway, New York; National Cash Register Co., Dayton, O.; New Columbia Watch Co., Columbus, O.; Chicago Cash Register Co., Chicago; Rochester Cash Register Co., Rochester, N. Y.; F. E. Woodward, Hill, N. H.

SHOW CASES.

From E. S. M., McGregor, Ia.

Would like addresses of manufacturers of show cases?

Ans.—Chas. F. Biele, 1433 W. Broadway, New York; Jas. E. Berry, 61 Dearborn Ave., Chicago; Chas. Bodach, 160 5th Ave., Chicago; G. F. Culmer & Bros., Salt Lake City, Utah; Exhibition Show Case Co., Erie, Pa.; E. Hewitt & Co., Denver, Col.; Kansas City Show Case Works, Kansas City, Mo.; Joseph Knittel Show Case Co., Quincy, Ill.; H. Kruse & Co., 86 Main street, Cincinnati, O.; H. Pauk & Sons Mfg. Co., 1313 N. 15th street, St. Louis, Mo.; L. Paulle, Minneapolis, Minn.; John Phillips & Co., Ltd., Detroit, Mich.; Pittsburgh Show Case Co., Ltd., Pittsburg, Pa.; Fred Pollard, Cleveland, O.; Rochester Show Case Works, Rochester, N. Y.; Schmidt & Co., Cincinnati, O.; N. & P. Scott, New York; Geo. H. Stahl, Quincy, Ill.; C. D. Widman & Co., Detroit, Mich.; M. Winter Lumber Co., Sheboygan, Wis.

CRIBBAGE BOARDS.

From M. E. Broughton, Sadieville, Ky.

Would like addresses of a few manufacturers of cribbage boards?

Ans.—American Pin Co., Waterbury, Conn.; F. Grote & Co., 114 E. 14th street, New York; James L. Hoyt, South Norwalk, Conn.

QUOITS.

From "Reader," St. Louis, Mo.

Who are some of the leading quoit makers?

Ans.—Chalfant Mfg. Co., Lancaster, Pa.; Jos. L. Haven Co., 56 Plum street, Cincinnati, O.; Samuel C. Tatum Co., Cincinnati; Wilkins Toy Co., Keene, N. H.

MAJESTIC RANGE CO.

From H. N. Koch, New Jersey, Ill.

What is the address of the Majestic Range Co.?

Ans.—St. Louis, Mo.

ITEMS.

The W. Dewees Wood mills at McKeesport, Pa. will not be removed.

Z. H. Thompson, H. A. Truesdell, O. C. Lillie, A. J. Packerd and A. C. Andrews are the incorporators of the Conneaut Can Co., Conneaut, O., incorporated with a capital stock of $50,000.

The National Enameling & Stamping Co. have nearly concluded extensive improvements in their plant at Granite City, Ill. These aforesaid improvements have been principally made in this concern's steel making plant.

The Montross Metal Shingle Co., Camden, N. J., are meeting with marked success in their sales of the Victor galvanized shingle. This shingle is deeply embossed, presents an attractive appearance and has a telescope side lock.

The Alcania Co., Avonmore, Pa., tin plate manufacturers, have been incorporated with a capital stock of $250,000. Mahlon M. Garland, W. H. R. Hilliard, Arthur C. Fording, William C. Weichsel and Oliver Wylie are the incorporators.

The Lefebvre Roofing & Cornice Co., St. Paul, Minn., have filed amended articles of incorporation changing their style to the Lefebvre-Deslauriers Roofing & Cornice Co., and making an increase in their capital stock from $10,000 to $20,000.

The Canton Steel Roofing Co., Canton, O., are manufacturers of a complete line of steel ceilings and side wall, skylights, cornices, eave trough, conductor pipe, hangers and fire proof doors and shutters. They would be pleased to send the trade one of their catalogues.

Cooney & Geiger, 19-21 East South St., Indianapolis, Ind., are manufacturers of the "Centennial" rain water cut off, which, it is claimed, is the only single cut off made to fit corrugated and plain pipe, and also the only one which can be used without extra pipe or elbows.

J. L. Perkins & Co., 241 Lake street, Chicago, are enjoying an active season's business. They are having an active demand for their specialties, which include pure asphalt roofing, Planet brand tarred ready roofing, slaters' felt, building papers, roofing cements, paints, etc.

The La Crosse Steel Roofing & Corrugating Co., La Crosse, Wis., are manufacturers of a complete line of eave trough, conductor pipe and elbows, roll and cap standing seam corrugated or plain roofing, crimped or rock-faced brick, cornices, skylights, finials, ventilators, cut-offs, crestings, etc.

The Amalgamated Association of Iron, Steel and Tin Plate workers accepts the peace terms and are generally returning to work, except in the six union plants conceded by the Amalgamated Association to the American Tin Plate Co. The men in these mills were very angry with President Shaffer.

Joseph Biechele, president of the Berger Mfg. Co., Canton, O., and an old-time friend of President McKinley, was one of the honorary pall-bearers at the funeral held in Canton, Sept. 19th. The other pall-bearers were John C. Dueber, George B. Frease, R. A. Cassidy, William R. Day, Henry W. Harter, William A. Lynch and Thomas F. McCarty.

J. F. Kenkel, with years of experience, has been chosen general superintendent of the work of the Lisk Mfg. Co., Ltd., and the McLaughlin-Martin-Parkhurst Co., both of Canandaigua, N. Y. This latter concern have put up an enameling plant that, it is claimed, is without a peer in the country. This enameling plant has just been completed and Mr. Kenkel is satisfied that it will turn out the finest enamel ware made on this continent.

The Lalance & Grosjean Mfg. Co., 19 and 21 Cliff street, New York, and 81-83 Michigan avenue, Chicago, have a very extensive plant devoted to the manufacture of such popular enameled wares as "Agate Nickel Steel," "Pearl Agate," "Peerless" and "Blue and White." They also manufacture the "L. & G." steel sinks and plain and retinned, shallow and deep stamped, japanned and pieced tinwares, spoons, milk cans, etc.

The J. M. & L. A. Osborn Co., 26-36 The Viaduct, Cleveland, O., handle a very complete line of furnace men's supplies, including registers at old list and discount, Excelsior standard wall pipe, Excelsior standard round pipe, Excelsior sectional double wall pipe, Michigan safety double wall pipe, Pecora cement, Crown cement, asbestos paper, 10 and 14 pounds to square yard, and heater pipe in a great variety of sizes.

The National Enameling & Stamping Co., with branch offices at New York, Baltimore, Chicago, St. Louis and Milwaukee, are now making their popular Brilliant enameled steel ware at their factory in Bellaire, O., in the brown color only. Their white and white enameled steel ware is also made by their Bellaire factory only. A large line of hospital goods are made in this ware, which is recommended by the manufacturers when sanitary qualities are essential.

McClure & Co., 211-215 Second avenue, Pittsburg, Pa., with a branch warehouse at 115 North Seventh street, Philadelphia, Pa., have recently bought a large block of stock in the Washington Charcoal Iron Tin Mills, Washington, Pa., which, with their previous holdings, gives them a majority of the stock. The management of these mills has been reorganized with Thomas G. McClure as president, J. J. O'Connor as vice president and P. J. McNulty as secretary and treasurer. McClure & Co. will continue to handle the entire output of these mills, consisting of 750 base boxes, and expect to double this capacity in a short time.

S. Y. Buckman, manager of the St. Louis branch of the Berger Mfg. Co., has been spending a brief but well earned vacation in Chicago the past week. Mr. Buckman was accompanied by his wife. In conversation with a representative of THE AMERICAN ARTISAN he stated only a few days before President McKinley's falling a victim to Czolgosz's murderous bullets, he had written him anent the forthcoming St. Louis Exposition, stating that undoubtedly the President would be pleased to learn that the branch office of a Canton firm occupied a site made memorable in the early history of the Louisiana purchase. Mr. McKinley wrote Mr. Buchman an interesting acknowledgment of this letter only a few days prior to his death.

NANSEN'S IMPORTANT ARTICLE.

In an early issue of The Saturday Evening Post, Doctor Nansen, the eminent arctic explorer, will describe the various pole-seeking expeditions of the year. The importance of this paper lies in the author's comments, and his predictions as to the success of the different parties.

J. A. Denkman, a Bennett, Ia., hardware dealer, is looking for a new location for his business.

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SAXON SCHOOL FOR METAL WORKERS.

An exhibit of the work done by pupils of the Metal Workers' School at Rosswein has been recently held in Freiburg, which showed the thoroughness of the instruction. These pupils are chiefly from Prussia and Saxony, but all sections of Germany are represented, and even Sweden and Austria. One of the conditions of admission is that the pupil should have had three years' experience. The school is provided with a technical library, reading and reference room, and has a large supply of scientific apparatus, electro-motors, batteries, etc., and many practical models of buildings, machines, etc. Excursions are frequently made by the pupils to the large factories and mines of importance in the neighborhood. The course at the school lasts from one and one-half to two years, and embraces four departments—building, fine arts, machines and electrotechnics. A great deal of attention is given to drawing. The student is taught to create, and, in order to stimulate the inventive faculties, the German patent office sends the institution, free of charge, copies of patents pertaining to mechanical, metal and electric apparatus. In addition to the special branches in metal work, etc., attention is also given to physics, chemistry, algebra, geometry, bookkeeping and German language lessons.

CURIOSITIES OF THE PADLOCK TRADE.

The cheapest and commonest iron padlocks made in South Staffordshire find a market in India, and constitute the only door fastenings to the huts of the native tribes. Willenhall formerly did a large trade in cheap cast padlocks, japanned in bright red or blue colors, which it was commonly said were bought for ornament rather than for use. The dusky beauties of the Dark Continent strung them together, and wore them in the form of a necklace, and rumor had it that this constitutes their only apparel. Tiny padlocks of silver gilt, the size of a threepenny bit, are still made in Willenhall, and are a curiosity of the craft dating as far back as the reign of Queen Elizabeth. A recent traveler in Siberia relates a curiously lavish use of remarkable padlocks in the city of Irkutsk. Every shutter in the place has one or more padlocks, and every door three to five. These padlocks vary from 1 lb. to 15 lbs. each in weight, those commonly in use weighing 5 lbs. and measuring 2½ in. thick. Where these remarkable padlocks are produced is not yet known, but neither Wolverhampton nor Willenhall makers know anything of them.—Hardwareman.

Trade Report.

BRADSTREET'S ON IRON AND STEEL SITUATION.

The editor of Bradstreets telegraphs us this advance report on the iron and steel situation:

The resumption of work in the hoop, sheet, tin plate and tube mills has been a feature of the week. The loss in wages to the men as a result of two months of idleness is estimated at $10,000,000, and the gross earnings of the company are said to have been reduced $15,000,000, much of the latter loss will, however, be made up, as there is an immense amount of business offering guaranteeing activity for months to come. All steel rails are being well taken at the west and steel mills are reported sold ahead to next year. Jobbers in iron and steel are busy supplying small lots to bridge over consumers until the mills recently on strike can come into the market. Pig iron is in rather better inquiry, and Bradstreets' Birmingham correspondent reports an advance of 25 cents per ton. Export business is very slow. Hardware, light and heavy, is very active.

WIRE NAILS.

Prices for wire nails remain at $2.45 for carload and $2.50 for small lots.

CUT NAILS.

Small lots of cut nails are quoted at $2.35.

BARB WIRE.

Barb wire continues in heavy demand. Painted is quoted at $2.75 in carload, and $2.85 in smaller lots, and galvanized is quoted at $3.05 in carload and $3.15 in smaller lots.

LINSEED OIL.

City raw linseed oil advanced Sept. 12 to 55c, and again on Sept. 16 to 65c per gallon in 5 barrel lots. This advance is due to a sharp advance in seed prices.

WHITE LEAD IN OIL.

White lead in oil is 6½c per lb. in lots of 500 lbs. or over, and 7c per lb. in lots of less than 500 lbs.

GLASS

Glass in less than carload lots is 80 and 20 per cent off and in carload lots it is 85 and 5 per cent off.

COPPER.

Consumers were still out of the market and there was little business done, although prices were steady at 16⅝c to 16¾c per lb. for lake copper and 16⅜c to 16½c for electrolytic.

TIN.

Although prices were steady at 25⅜c to 25½c per lb. for spot tin, there was very little demand.

LEAD.

Lead continued dull but firm at 4⅜c per lb. in 50 ton lots. In St. Louis the market was quiet at 4.25c for soft Missouri and 4.35c for chemical. Exports were 104 tons. Soft Spanish lead was unchanged in London at £12 per ton.

IRON AND STEEL.

All indications point to an unusually large volume of business during the remainder of the year. Prices are unchanged, but the undertone is strong. Chicago reports a slow improvement in the volume of business in pig iron. There is much more inquiry, however, than there is business transacted. Prices remain steady. All kinds of finished iron and steel are in active demand, and in some lines the famine is greater than ever; bars are very active, with quotations slightly higher for quick delivery; old material also is firm and mills are buying with some freedom. Reports from Pittsburg state that there is a great scarcity of billets and the big plants are thereby hampered in their operations.

TIN PLATE.

In the tin plate trade it is said that the strike has curtailed the production of nearly 1,000,000 boxes of tin plate. It will be some time before the American Tin Plate Co. will be able to make up this production, and as long as a scarcity of the bright plate exists jobbers will be in a position to secure small premiums for prompt deliveries. The present price of the American Tin Plate Co. on tin plate is $4 per box, and this price will continue unchanged until January 1. At present the ruling price of tin plate for prompt shipment is $6.50 per box, while jobbers are quoting as high as $4.50 per box for delivery in November and December.

SHEETS.

The production of the American Sheet Steel Co. is curtailed considerably, as it will be fully four months before deliveries can be made on much of the new business placed. The combine quotes No. 28 gauge black sheets, one pass through cold rolls, at $63 per ton, while independent manufacturers are quoting $65 per ton for future delivery. Sheets from warehouse stocks are quoted at $75 to $80 per ton. The indications are that small premiums will be asked for spot goods for some time.

MERCHANT PIPE AND TUBING.

A speedy drop in present prices of merchant pipe, tubing and casing is looked for, and jobbers this week can secure no more than 25 per cent advance over National Tube Co. quotations, although last week from 35 to 40 per cent advance was paid without question. While the National Tube Co. has a large amount of accumulated business on hand and will be pressed for deliveries for some time no change in prices will be made.

Quotations.

METALS.

FIRST QUALITY BRIGHT PLATES.

			Per Box.
IC	10x14		$8 75
IX	10x14		10 50
IC	12x12		8 75
IX	12x12		10 50
IC	14x20		8 75
IX	14x20		10 75
IXX	14x20		11 75
IXXX	14x20		13 25
IXXXX	14x20		14 75
IC	20x28		17 00
IX	20x28		20 00
IXX	20x28		23 00

COKE PLATES.

Cokes, 180 lbs	IC	20x28	12 70
Cokes, 200 lbs	IC	20x28	13 00
Cokes, 216 lbs	IC	20x28	13 30
Cokes, 216 lbs	IX	20x28	15 25

PIG IRON.

Lake Sup. Charcoal	$17 50@$18 00
Local Coke Fdy No. 1	15 50@ 16 00
Local Coke Fdy No. 2	15 00@ 15 50
Local Coke Fdy No. 3	14 50@ 15 00
Local Scotch Fdy No. 1	15 50@ 16 00
Local Scotch Fdy No. 2	15 00@ 15 50
Local Scotch Fdy No. 3	14 50@ 15 00
Southern Coke No. 1	14 65@ 15 15
Southern Coke No. 2	14 15@ 14 65
Southern Coke No. 3	14 15@ 14 65
Southern Coke No. 4	13 90@ 14 15
Southern No. 1 Soft	15 40@ 15 55
Southern No. 2 Soft	14 90@ 15 15
Southern Silveries	15 45@ 15 50
Jackson Co. Silveries	17 00@ 17 50
Ohio Strong Softeners	16 50@ 17 00
Alabama Car Wheel	21 00@ 22 00
Malleable Bessemer	16 00@ 17 00
Coke Bessemer	17 50@ 18 50

BLACK SHEET STEEL.

¼ in. 3-16 in. Nos. 8 and 10. per lb.	$3 80
No. 12 per lb.	3 85
No. 14 per lb.	3 90
No. 16 and 18 per lb.	3 95
No. 20, 22, 24, 25 and 26 per lb.	3 90
No. 27 per lb.	4 00
No. 28 per lb.	4 18

SMOOTH STEEL.

		per lb.
Wood's Smooth Steel,	15-17	$4 00
" " "	18	4 10
" " "	20	4 20
" " "	22-24	4 30
" " "	25-26	4 40
" " "	27	4 50
" " "	28	4 60

PATENT PLANISHED SHEET STEEL.

Patent Planished Sheet Steel. "A" $10 20, "B" $9 20

GALVANIZED IRON.

Galvanized Iron 65%

SOLDER.

Extra 20½c

Commercial 19½c

SHEET ZINC.

600 lb. Casks, base 7¼c per lb.

COPPER.

Copper base, 21c

TIN PIGS AND BARS.

Banca, pigs, per lb. 28¼@28½c
Straits, pigs, per lb. 28 @28¼c
Straits in bars, per lb. 28¼@29 c

LEAD.

American Pig 4.60@4 62½c
5½@ ¾

HARDWARE.

QUOTATIONS.

(The quotations given below represent the current hardware prices. They are not given as manufacturer's prices, and manufacturers should not be held responsible for them. Manufacturers sometimes name higher figures than those quoted for goods; they are not always selling at the price quoted, but goods are being sold at the figures printed below by manufacturers and jobbers.)

ADZES—CARPENTERS'.

Hunt's 25%
White's 12½%
Coopers'—Barton's 12½%
White's 12½%
Ship—Barton's 12½%
White's 15%
Hunt's 25%

AGATE NICKEL STEEL WARE.

Agate Nickel Steel Ware 33⅓&10%

AMMUNITION

CAPS, PERCUSSION—per 1000—

F L Waterproof, 1-10s 50c
G D 40c
Eley's 52c

CARTRIDGES.

Peters Rim Fire Ctgs 50&3%
Peters Cent Fire, Pistol & Rifle 25&3%
Peters Cent Fire, Military and Sporting Ctgs 15&5%
Peters Blank Ctgs, except 22 and 32, an additional 10% from above discount.
Peters Blank Ctgs. 22 cal 10&10%
Peters Blank Ctgs. 32 cal 10&10%
Peters B B Caps, Round ball $1 18
Peters B B Caps, Conical ball $1 90
U. M. C. Rim Fire Ctgs 50&3%
U.M.C. Cent. Fire, Pistol & Rifle 25&3%
Winchester Cent. Fire, Military and Sporting Ctgs 15&5%
U. M C. Blank Ctgs. 22 & 32 cal 10%
U. M. C. Blank Ctgs. 38 cal 50-10-10%
U. M. C. B B Caps, Round Ball $1 75 25&10%
U .MC. B B Caps, Con. Ball $2 00 net
U M. C. Rim Fire Shot Ctgs 50&15&3%
U. M. C. Cent. " " " 25&10&3%

PRIMERS.

Berdan Primers $1 00
Peters Primers 1 10
U. M. C. Primers 1 08
Winchester Primers 1 08

SHELLS.

Peters Empty Paper Shells, 10 and 12 gauge. League 25&5%
Peters Empty Paper Shells, 16 gauge. League 20&5%
Peters New Victor Nitro shells 15%
Ideal 33⅓&10%
Peters Loaded Shells. League and Semi Smokeless 40&5%
Peters New Victor Loaded Shells, with King's Smokeless 40&10&10%
Ideals Loaded with Kings Smokeless 40&10&10&5%
U. M. C, New Club, 16 guage 20&10%
U. M. C. New Club 10 & 12 gauge 33⅓&5%
U. M. C. New Club 33⅓&5%
U. M. C. Nitro 18%
U. M. C. High Base 18%
U. M. C. Trap 33⅓&10&7%
Winchester Blue Rivals } 20%
Winchester Yellow Rivals }
Winchester Repeater 18%
Winchester Leader 33⅓&10&7%
U. M. C. Loaded Shells. Black Powder } 40&5%
Winchester Loaded Shells, Black Powder }
U. M. C. } Smokeless
Winchester } 40&10&10&5%

GUN WADS—per 1000.

Peters Gun Wads 20&5%
U. M. C. Gun Wads 20&5%

POWDER.

King's Quickshot Powder; Kegs $4 00; ½ kegs $2 25; ¼ kegs $1 25.
King's Semi-Smokeless 20&5%
King's Smokeless 25, 20 & 10
Austin Quickshot Powder, Kegs $4 00; ½ kegs $2 25; ¼ kegs $1 25.
Dupont Smokeless, Sporting 25, 20 & 10c.

SHOT.

Drop shot, sizes smaller than B, 25-lb bags, per bag $1 35
Drop shot, B and larger sizes, 25-lb bags, per bag 1 60
Buck Shot, 25-lb bags, per bag 1 60
Chilled Shot, 25-lb bags, per bag 1 60

ANVILS.

Hay-Budden, 70 to 84 lbs 10c per lb
Hay-Budden, 85 to 150 lbs 9c per lb

AUGERS AND BITS.

Snell's Boring Mach. Augers 60&10&5%
Snell's Car Bits, 12-inch twist 40%
Jennings' Pattern Auger Bits 50&10%
Russell Jennings' Augers and Bits 25&10%
Ship Augers, L'Hommedieu Bits 15%
Irwin 50%
Climax Bits 60&10%

AWLS.

Brad, handled per doz. $ 35
Brad, shouldered, assorted 1 to 4 per gr. 2 00
Brad, shouldered, assorted 1 to 6 per gr. 2 50
Peg, Pat per gr. 60
Peg, shouldered per gr. 1 00
No. 1, Scratch, handled per gr. 4 80
No. 5, Scratch, socket per doz. 6 00

AXES.

Lippincott per doz		6 50
Mann	"	6 50
Second quality	"	6 00
Beveled axes, add	"	50
Broad—		
Peerless can patt	"	28 50
Hunt's	"	30
White's	"	12%
Hand—		
Hunt's	"	40
White's	"	12%
Ship—		
White's	"	12%

AXLES.

Common iron, long arm, sq. bed 5¼
Concord iron. long arm, sq. bed 6¼
Concord express, long arm, steel, square bed 6¼
Coach shape on above, ex. per. lb. ⅛
Short arms on above, extra per lb. 2
Welded axles on above, ex. per lb 1½
Half Patent, steel, Nos. 7 to 14 70
Half Patent. steel, Nos. 19 to 22 70
Extra, coach shape, 1¼ & smaller per set 15
Extra, coach shape, 1¼ 1⅛, per. set 30
Extra, coach shape, l'g'r, per. set $1 00
National Wrought Steel Tubular, Self Oiliug—
Standard Farm (1 to 5) and Special Farm (A1 to A5) less than ten sets 20%
Over ten sets 25

BEAMS—SCALE.

Scale Beams, List Jan. 12, 82 35%
Frary's 40%
P. S. & W. 30%

BELLOWS.

Blacksmiths 70%
Hand, 6½ in per doz. $4 50
Molders', 10 in per doz. 9 00

BELLS.

COW.

Ordinary Goods 70&10%
High Grade 60&10%
Jersey 75&10%
Texas Star 50&10%

DOOR.

Abbe's Gong 45%
Barton Gong 55%
Home, R. & E. Mfg. Co.'s 55&10%
Lever and Pull, Sargent's 20&10&10%

HAND.

Hand Bells, Polished 60@60&10%
White Metal 55@55&10%
Nickel Plated 50@50&10%
Swiss 60%
Silver Chime 33⅓@33⅓&10%

MISCELLANEOUS.

Farm Bells lb. 2¼ to 2½c
Steel Alloy, Church and School 50&10&5@60%
Wilmot & Hobbs Mfg. Co., Gongs 70%

BIT STOCK DRILLS.

Standard List 60@60&5%

BLOCKS.

Common Wooden 70%
Eddy Steel Tackle Blocks 66⅔&5%

BOLTS.

CARRIAGE, MACHINE, ETC.

Common, list Jan. 30, 95 65%
Norway Iron, $3.00, list Oct. 7, '84 75&10%
Bolt Ends, list Jan. 30, '95 50&10%
Machine, list Sept. 20, '99 65&10%

DOOR AND SHUTTER.

Ives' Patent Door 60%
Wrought Barrel, Standard list. 70&10%
Wrought Flush 40&10%
Wrought Square, Standard list 65%

STOVE AND PLOW.

Plow 40&10%
Stove, list December 28, 1899 70 to 70&10%

TIRE

Common, list Dec. 28, '99 70%
Eagle Philadelphia 72½%
Norway 75%

BORING MACHINES.

Jenning upright without Augers $2 00

BOXWOOD RULES.

No. 4	$11 00	per doz
" 12	16 00	"
" 18	6 00	"
" 26	11 00	"
" 27	13 00	"
" 29	4 50	"
" 66	10 00	"
" 66½	10 00	"
" 67	6 00	"

Boxwood 80&10%
Ivory 40&10%
Lufkin's Steel 50&10%

BRACES.

Barber's 59&10%
Common Ball, American $1 50
Fray's Genuine Spofford's 60%
Fray's No. 307 to 322 40&5%
Fray's No. 508 to 522 50%

BRACKETS.

Cast Iron Plain 50&10%
Wrought Steel 70&10@ 75%
Bradley's 75 @ 75&10%

BROILERS.

Wire Goods Co 75%

BUTTS.

Bright Butts, Nos. 800, 802, 804, 806, 808, 810, 814, 816, 818, 820, 854 70%
Bright Butts, Nos. 826, 828, 829, 830, 832, 834, 836, 838, 840, 842, 843, 844, 845, 846, 848 70%
Bright Butts, Nos. 822, 822¼, 823, 823½ 70%
Japanned Butts, Nos. 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 726, 727, 728, 729, 730, 731 70%

CAGES—BIRD.

Enameled 40%
Brass 1200 series 33⅓%

CASTERS.

Bed 60&10&5%
Plate Casters 60&10&5%
Martin's Patent (Phoenix) 50&5%

CHAIN.

American Coil, Cask lots:

3-16	¼	5-16	⅜	7-16	½	9-16
7.45	5.55	4.55	3.70	3.55	3.45	3.40

⅝ ¾ ⅞ to 1 1⅛ to 1¼ inch
3.40 3.35 3.35c. per lb. 3.60 per 100 lbs
Less than Cask lots add 25c.
German Coil, list July 24, '97 60&10&10%
German Halter Chain, list July 24, '97 60&10&10%
Traces, Western Standard: 100 pair
6½—6-3, Straight, with ring $26.00
6½—6-2, Straight, with ring 27 00
6½—8-2 Straight, with ring 31.00
6½—10-2, Straight, with ring 34.50
Add 2c per pair for Hooks.
Twist Traces 2c. per pair higher than Straight Link.
Trace, Wagonand Fancy Chains Eastern list 60@60&5
Jack Chain, lis July 10 '93:
Iron 60@60&
Brass 60@60&1

Safety Chain.....70@70&10%
Gal. Pump Chain.....lb. 4½@4¾c
Covert Sad. Works:
Breast, Hitching and Rein Chains.....50%
Covert Mfg. Co.:
Breast.....35&2%
Halter.....35&2%
Heel.....35&2%
Rein.....35&2%
Stallion.....35&2%
Oneida Community:
Eureka Coil and Halter...60@60&5%
Niagara Coil and Halters.60@60&5%
Niagara Cow Ties..45&5@45&10&5%
Am. Coil and Halters..50&10&5@60%
Am. Cow Ties.....35&5@40&5%
Wire Goods Co.:
Dog Chain.....60&10%
Universal Dbl-Jointed Chain....50%

CHALK.

Blue.....per gross 60c
Red..... " 50c
White..... " 45c

CHALK LINES.

Chalk lines.....per doz. $2 50

CHISELS.

Mix..... } 70&5 to 70&10%
Witherby..... }

CHISELS.

Box.....20%
Tinners.....40%
Cold, per lb., regular qual.....20%
Cold, per lb., special qual.....33%
Corner.....66⅔%
Firmer, American..... 20, 10&10%
Barton's.....20%
Butcher's.....40&10%
Mortice, Butcher's.....40&10%
Socket, Firmer.....70%
Framing.....70%
Turning, Barton's.....20%
Butcher's.....50%
Beveled.....20%

CLAMPS.

No. 25 Adjustable.....50&10 to 60%
Carriage Makers.....50&10&5%

CLEANERS.

Pot.....per doz $1 10

CLEAVERS.

Beatty's.....dis 40
White's..... " 15

CLIPPERS.

E. H. Hotchkiss Horse Clippers
No. 10.....per doz $18 00
No. 30..... " 15 60
No. 22..... " 13 80
No 20..... " 13 20
No. 8..... " 10 80
H. Hotchkiss Toilet Clippers
No. 1.....per doz 9 60
No. 101..... " 10 80
No. 201..... " 10 80
No. 300..... " 13 20
No. 500..... " 15 00

COFFEE MILLS.

Enter. Mfg. Co., list Jan. 17, '93....25%
Parker's.....50&10%
Arcade.....60&10%

CORKSCREWS.

Howes..... 25 & 22%
Humason & Beckley..... 40 & 10%
Empire.....40%
Walker's.....net
Williamson's Regular.....40%
Williamson's Forged Worm 40%

DOG COLLARS.

Pope & Stevens' List:
Brass (full Assortment).....net price

DOOR CHECKS.

Blount.....30%
Eclipse.....30%
Corbin.....30%

DRILLS AND DRILL STOCK.

mmon Blacksmith's Drill.....$1 50@$1 60
Bench Drills, Stearns'.....5 50& 6 00
Blacksmith's Self-feeding, each.....$5 00&$7 00
Breast, Millers Falls, each..$8 00 90%
Godell Automatic Drills,$12 00to$15 00

EGG BEATERS.

Standard Co.:
No. 5 Steel Handle Dover per gross.....$ 6 50
No. 10 Cast Handle Dover pr gr 8 00
No. 10 Steel H'ndle Dov'r pr gr 8 00
No. 15 Extra Heavy Steel Handle per gr..... 15 00
Rival per gr..... 10 00
Taplin Mfg Co.:
No. 50 Small Family size pr gr 6 50
No. 100 Regular Fam size pr gr 8 00
No. 102 Regular Family size tinned pr gr..... 9 50
No. 150 Large Fam size pr gr.. 15 00
No. 152 Large Family size tinned pr gr..... 17 00
Lyon's Standard size per doz.. 1 75
Wonder (S. S. & Co.) per gr.... 7 50

ENAMELED WARE.

Peerless (L. & G. Mfg. Co.).....Net
Royal (N. E. & S. Co.).....Net

FASTENERS, BLIND.

Zimmerman's.....50&10%

FAUCETS.

Standard Metal Key.....25%
B. & L. B. Co.
Redlich's Wood Faucets.
Red Cedar..... } Net Prices.
Oak..... }
Cherry..... }
Cork Lined..... }
Metal Key..... }
Self Measuring:
Enterprise, per doz. $36 00.....40%
Cork Lined..... 70&5@70&10&5%
Metallic Key, Leather Lined.....70@70&10%
Red Cedar.....50@50&5%
B. & L. B. Co.:
West's Lock, Open and Shut Key.....50&10%
John Sommer's Peerless Tin Key..40%
" " Boss Tin Key.....50%
" " Victor Metal Key .50&10%
" " Duplex Metal Key....60%
" " Diamond Lock..... 40%
" " I X L Cork Lined ...50%
" " Reliable " " ..50&10%
" " Common " " 70%
" " Chicago " " 60%
" " O K " " 50%
" " Perfection Cedar..... 40%
Star.....60@60&5%
Star, Metal Plug new list... 40@40&5%
Lockport, Metal Plug, reduced list.....60&5%
McKenna, Brass:
Burglar Proof, N. P.....35%
Improved, ¾ and ⅞ inch.....35%
Self Measuring:
Enterprise, per doz $36.00.....40%
Lane's, per doz. $36.00 .....40&10%
National Measuring, per doz $36.00.....40%

FILES—Domestic.

New List, Nov. 1, '99:
Black Diamond.....70&10%
Disston's.....75& 5%

Imported.

Stubs list.....5%

FORKS AND HOES.

Coke and Cottonseed Forks....40&5%
Coal Forks.....40&5%
Barn or Ice Forks.....40&5%
Beet Forks.....30&10
Ballast or Stone Forks.....40&5%
Tanners' Forks.....40&5%
Shaving Forks.....40&5%
Potato Scoop Forks.....40%
Oyster Forks.....40&5%
Sluice Forks.....40&5%
Heavy Mill, Manure or Street Forks.....70%
Steel Tar or Asphalt Rakes.....65%
Asphalt Hoes.....65%
Two Tine Hay Forks, Std. Size..65%
3 Tine Hay Forks, Std. Size..60&16⅔%
Four Tine Hay Fork, Std. Size 66⅔%
Socket Four Tine Hay Forks..66⅔&5%
Socket Four Tine Manure Forks .70%
Socket Four Tine Spading Forks.....70&5&5&2½%
Three Tine Hay Header and Baler Forks.....67½&2½%
Four Tine Hay Header and Baler Forks.....66⅔%
Grain or Barley Forks.....70&6%
Four Tine Manure Forks.....70%
Five & Six Tine Manure Forks.....70%
Spading Forks.....70&2½%
Potato Digging Forks.....65%
Stone Picking Forks.....65%
Garden Hoes.....75%
Meadow and R. I. Hoes...75&5&2½%
Sunbeam Meadow Hoes.....75&5&½%
Mortar and Street Hoes.....75&2%
Planter Hoes, Regular Pattern 70&30%
Tobacco Hoes.....75&20%
Cotton Hoes.....70&10&10&5&2%
Rough Fin. Shank Cot. Hoes 75&12½%
Cotton Chopper Hoes....75&10&7½%
Ladies' Cotton Hoes.....75&10&7½%
Malleable Rakes.....70@70&10%
Toy Ladies' and Boys' Hoes.....70&10to70&10&5%
Weeding Hoesand Rakes...70@70&5%
Potato Hooks.....65to65&10%
Hop Hooks.....60&10&2½%
Steel Garden Rakes..... 70&2%
Steel Garden Rakes Stamped blank 70%
Turf Edgers.....60&5%
Steel Road Rakes..... 65%
Special Mortar Hoes.....40&10&2½%
Harpers' No. 7 Mortar Hoes.... ..65%
Truck Hoes.....50&10&2%
Hoes..... 65%
Special Hoes.....75&10&2%
Hoe Down Hooks.....75&10&2%
Warren Hoes.....50&10&7½%
Laid Steel Edge Hoes.....25, 5&2%

GAUGES.

Marking, Mortise, etc.....60%
Stanley R. & L. Co.'s Butt & Rabbet Gauge.....Net
S. & H. Cos.....75%

GIMLETS.

Gimlets.....60%

GLASS CUTTERS

Woodward.....33⅓&10%
Red Devil.....33⅓&10%

GLUE POTS.

Tinned.....30%
Enameled.....35%

GLUE.

Martin's Liquid, List....33⅓% off List
Martin's Liquid, List....33⅓% off List
Martin's Liquid, List....33⅓% off List

GREASE, AXLE.

Fraser's.....Ne
Baum's Castorine.....Net

GRINDSTONE FIXTURES.

Stowell's..... Net
Reading Hardware Co.....Net

HAMMERS.

"Artisan's Choice" A. E. Nail.40&10%
Engineer's and B. S. Hand.....60%
Machinist's Hammers.....60%
Bell Face, A. E. Nail.....50
S. & H. Cos. No. 20 ....per gross. 5 25

HANDLES—IRON, WROUGHT OR CAST—DOOR OR THUMB.

No. 0.....per doz $0 90 } Dis.
No. 1..... " 1 00 }
No. 2..... " 1 18 }
No 3..... " 1 35 }
No. 4..... " 1 50 }
Bronze iron drop lat., per doz net $1 10
Japanned store door.....net 1 10
Barn door No. 5..... " 1 35
Chest and lift.....dis 50
Wood—
Saw and plane..... " 45
Hammer, hatchet, axe, etc.... " 45
Brad awl.....per gro. 45
Hickory firmer chisel..... } .25
Apple firmer chisel..... }
Socket firmer chisel..... }
Socket framing chisel,..... }
File.....per gro. $2 80
Auger, assorted..... 5 00
Hoe, rake, shovel, etc..... 50
Cross Cut Saw—
Atkins' No. 1.....per pair 28
" No. 3..... " 18
" No. 6..... " 12
Triumph..... " 12
Common loop..... " 10

HANGERS.

Chicago Spring Butt Co.:
Friction.....25%
Oscillating.....25%
Big Twin.....25%
Cronk Hanger Co.:
Loose Axle.....60%
Roller Bearing.....60&10%
Lane Bros:
Parlor, Ball Bearing.....$4 00
Parlor, Standard..... 3.25
Parlor, New Model..... 2.75
Parlor, New Champion..... 2 40
Barn Door, Standard.....60&10%
Covered.....50&10&10&5%
Special.....60&10%
Lawrence Bros.:
Advance.....60%
Cleveland.....60&10%
Crown..... 60%
New York..... 60%
Peerless.....60&10%
Sterling.....60%
McKinney Mfg. Co:
No 2, Standard, $18.....60&10%
No. 1, Special, $13.....60&10%
Stowell Mfg. and Foundry Co.:
Acme Parlor Ball Bearing.....40%
Atlas.....50&10%
Badger Barn Door.....50%
Baggage Car Door.....50%
Climax Anti-Friction.....50%
Elevator.....40%
Express.....50%
Interstate.....50&10%
Lundy Parlor Door..... 50%
Matchless.....50&10%
Nansen.....60&10%
Stowell Parlor Door..... 50%
Railroad.....50%
Street Car Door..... 50%
Steel, Nos. 300, 404, 500.....40&15%
Wild West..... 50%
Zenith for Wood Track.....50%
Taylor & Boggis Foundry Co:
Kidder's.....50@50&10%
Wilcox Mfg Co:
Bike Roller Bearing.....60&10%
C. J. Roller Bearing.....60&10%
Cycle Ball Bearing.....50%
Dwarf Ball Bearing.....40%
Ives, Wood Track..... 60&10%
L. T Roller Bearing.....60&10&5%
New Era Roller Bearing .....50&10%
O. K. Roller Bearing.....60&10&5%
Prindle, Wood Track..... 60%
Richards' Wood Track..... 60%
Richards' Steel Track.....50&10%
Spencer Roller Bearing.....60&10%
Tandems, Nos. 1 and 2..... 60%
Underwriters' Roller Bearing....40%
Wilcox Auditorium Ball Bearing 20%
Wilcox Barn Trolley No. 123 ....40%
Wilcox Fire Trolley, Roller Bearing.....30%
Wilcox Le Roy Noiseless Ball Bearing.....40%
Wilcox New Century ....50&10&10%
Wilcox Trolley Ball Bearing.....40%

HATCHETS.

American Axe and Tool Co..... }
Blood's..... }
Hunt's..... }
Hurd's..... } 40&10%to40&10 &5%
Mann's..... }
Underhill's..... }
C. Hammond & Son.. }
Fayette R. Plumb.... }

HAY AND STRAW KNIVES.

Lightning.....$6 50&$7 00

HINGES.

BLIND AND SHUTTER.

Surface Gravity Locking Blind:
(Victor; National; 1868 O.P.; Niagara; Clark's O. P.; Clark's Tip; Buffalo.)
No.....1 3 5
Doz pair.....$0.75 1.45 2.90
Mortise Shutter:
(L. & P., O. S., Dixie &c.)
No.....1 1½ 2 2½
Doz. pair.....$0.60 55 52 45
Mortise Reversible Shutter, (Buffalo, &c.)
No.....1 1½ 2
Doz. pair.....$0.65 .60 .55
Parker.....70@75%
North's Automatic Blind Fixtures, No 2, for Wood $9.00; No. 3, for Brick $11.50 ..... 10%
Reading's Gravity.....75&10%
Sargent's, No. 1, 3, 5.....66⅔&10%
Sargent's Nos. 11 & 13.....70&10%
Wrightsvile H'dware Co.:
O. S., Lull & Porter.....80&2½%
Acme, Lull & Porter.....75&10%
Queen City Reversible.....75&10%
Stenger's Positive Locking, Nos 1 & 3.....70&10&5%
Shepard's Noiseless, Nos. 60, 65, 55 70&10%
Niagara, Gravity Locking, Nos. 1, 3 & 5.....75&7½%
1868, Old Pat'n. Nos. 1, 3 & 5 75&7½%
Tip Pat'n. Nos 1, 3 & 5.... 75&7½%
Buff, Gravity Lock., 1, 3, 5..75&7½%
Shepard's Double Locking, Nos. 20 & 25.....70&10%
Champion Gravity Locking, No 75 75&7½%
Steamboat Gravity Locking, No 10 5&7½%
Pioneer, Nos 060, 45 & 5½..75&7½%
Empire, Nos 101 & 103.....70&7½%
W. H. Co's Mortise Gravity Locking No 2.....60&10%
Stanley's Steel Gravity Blind Hinges, per doz. sets $1.20.....30&10%

GATE.

Clark's or Shepard's—Doz. sets:
No.....1 2
Hinges with Latches$1.60 2.50

Hinges only..... 1.30 1.90 2.90
Latches only..... 65 65 95
New England:
With Latch.....doz....@$1.55
Without Latch.....doz....@$1.25
Reversible Self-Closing:
With Latch.....doz....@$1.80
Without Latch.....doz ...@$1.45
Western:
With Latch.....doz. $1.40@1 75
Without Latch.....doz. $0.95@1.30
Wrightsville H'dware Co.:
Shepard's or Clark's Nos. 1 & 2... 65&2½%
Shepard's or Clark's, No. 3....55&5%

SPRING

Ho'dback, Cast Iron, gros. $8.00@8.25
Non-Holdback, Cast Iron.... gro. $6.75@7.25
Extra 10% often given on most of these hinges.
J. Bardsley:
Bardsley's Patent Checking 15%
Bommer Bros.:
Bommer Spring Hinges 40%
Bommer Ball Bear. Floor Hinges.40%
Chicago Spring Butt Co.:
Chicago 20%
Floor Hinge.....40%
Garden City Engine House.....20%
Keene's Saloon Door 20%
Triple End.....40c
Hoffman Hinge & Foundry Co.:
No. 70 & 80 Holdback Detachable $8.50
Lawson Mfg. Co.:
Matchless 30%
Matchles Pivot.....35%
Payson Mfg. Co.:
Oblique.....50&10%
Stover Mfg. Co.:
Ideal, No. 16, Detachable, per gr. $12.50
Ideal, No. 4 .....per gr. $9 00
New Idea No 1.....per gr. $9 00
New Idea, Double Acting.....45%

WROUGHT IRON

Strapand T Hinges, list Mar. 15, 1901:
Light Strap Hinges.....75%
Heavy Strap Hinges.....80%
Light T Hinges.....70%
Heavy T Hinges.....66⅔%
Extra Heavy Hinges.....75&10%
Hinge Hasps.....60%
Cor, Heavy Strap.....80%
Cor, Ex. Heavy T.....75&10%
Screw Hook and Strap:
6 to 12 in.....lb. 3⅛c
14 to 20 in.....lb. 3¼c
22 to 36 in.....lb. 3 c
Screw Hook and Eye:
¾ to 1 inch.....lb. 5c
⅝-inch.....lb. 6c
½-inch.....lb. 7c

MISCELLANEOUS—

Hoffman's Steel Spring Butt Hinges 40&10%
Hoffman's OffsetRefrigeratorHinges 40&10%

HOLLOWWARE.

Stove Hollowware Ground.....50%
Maslin Kettles.....70&10%

HOOKS.

Picture, No. 299 ....&28c

BUSH HOOK.

No. 1, Underhill $9 00
Bird cage 40%
Clothes line .....60&10&10%
Grapling.....50%
Ceiling.....60&5%
Coat and Hat .....60&5%
Harness .....60&10&10%

WROUGHT IRON.

Cotton, V. & B.....25%
Tassel and picture.....50%
Wire, Coat and Hat, Gem.....net
Indestructible.....45%
Brass .....net $2 0 %
Hooks and eyes, bright wire....80&10%
Brass.....60&10&5
Fish hooks, American.....50%

HOSE—RUBBER.

Competition.....dis 70&10%
Standard 70%
Extra 60%
N. Y. Rubber Co.'s st'd.....50&10%
Banner.....60%
Extra.....50%

IRONS—SAD AND POLISHING.

Mrs. Potts' No. 50.....70c
Mrs. Potts' No. 55.....70c
Mrs. Potts' No. 60.....90c
Mrs. Potts' No. 65.....85c

KNIVES.

Standard List.....70&5%
Adjustable Handle.....25@33⅓%
Watrous.....30&10@40%
Cantelo's Folding.....25%
Improved Crown.....20%

KNOBS.

Base, 2½in. Birch Rubber tip ℔ gro.....$1 40
Door, Mineral.....℔ doz. 65c
Door, Por. Jap'd.....℔ doz. 75c

LADLES.

Reading.....Net
Sargent's.....Net

LANTERNS-TUBULAR.

No. 0 Berger's "Bail Lift," per doz. $9 50.....40&10%
No. 0, Berger's "Bail Lift," Galvanized, per doz. $10 50...40&10%
No. 2 Berger's "Bail Lift," per doz. $13 00.. .....40&10%
No. 2 Berger's "Cold Blast," per doz. $16 00.....40&10%
No. 0 Berger's Dash Board, Japanned, Plain Globe, per doz. $13 00.....40&10%
No. 0, Berger's Dash Board, Japanned, Bull's Eye, per doz. $13 50 .....40&10%
No 2, Berger's Dash Board, Japanned, Plain Globe, per doz. $17 00 .....40&10%
No. 2, Berger's Dash Board, Japanned, Bull's Eye, per doz. $17 50.....40&10%

BULL'S EYE POLICE.

2¾-in. flash light, per doz. $3 50@$3 75
3-in. flash light, per doz. ..4 00@ 4 25
4¾-in. regular, per doz.....3 50
3-in. regular, per doz.....3 57

LEMON SQUEEZERS.

Wood, Common, per gr., No. 0 $5 00; No. 1 $6 50; No. 2 $10 00.

Wood, Porcelain lined, No. 1.....per doz. $3 00@$3 50
Tinned Iron.....per doz. 1 25
Iron, Porcelain Lined, per doz.....3 25@ 3 50
Jenning's Star...per doz. 1 85@ 1 90
King.....per doz.

LOCKS.

Plate 33⅓%
Slaymaker-Barry Co.....30&35%
Sargent & Co.....40, 40&10%
Yale flat key.....net
L. & C, round key.....30&10%
Reading Harding Co.....40%
L & C. flat key latches .....33&10%
Stearns' sliding door....net $15 00

CABINET.

Eagle.....33⅓%
Yale.....33⅓%
Eagle and Corbin trunk.....25%

PADLOCKS.

Wilcock's..... 70%
M. W. & Co..... 70%
Russell & Irwin 70%
Slaymaker Barry Co..... 40%
Bohannon's brass..... 30%
Yale.....net
Eagle 33⅓%
Eureka, Eagle Lock Co 40%
Corbin.....33⅓&10%

MALLETS.

Fiber Head Sterns.....30&10%
Hickory.....40%
Lignumvitæ .....40&40&10%
Tinners'. Hickory and Applewood, per doz. .....75c@$1 50

MATTOCKS.

Regular list.....70%

MOWERS, LAWN.

Cheap.....all sizes, $2 00@$2 10
Good.....all sizes, $2 50@$2 75

	10	12	14	16-in
High Grade....	4.25	4.50	4.75	5.00

Pennsylvania and Continental .....Net price
Genuine Philadelphia Mowers:
Styles M. S., C., K., T.....70&10%
Style A, (all steel).....60&10%
Style E, Low Wheel.....60&10%
Style E., High Wheel.....70&10&5%
Drexel, low list, ...60%
Gold Coins, low list, ...60%
Dewey's.....Net price
All Day .....Net prices

NAIL PULLERS.

Giant, No. 1..... per doz.. $18 00, 40%
" No. 1½.... " 16 00, 40%
" No. 2..... 15 00, 40%

Ajax.....Net prices.
Diamond B.....per doz., $ 9 00
Pipe.....per doz., 12 00
Eureka.....per doz., 10 00

NAIL SETS.

Octagon..... per gross, $8 00@$9 00
Round..... per gross, 8 00@ 9 00
Cannon's Diamond Point, per gross .....$9 00 Net

NUT CRACKERS.

Sargent's No. 12.....$1 50

OILERS.

Tin or Steel.....50%
Zinc..... 50&10&5 to 60%
Malleable Hammers 35%
Malleable Hammers, old pat., same list .....Net

PADLOCKS.

Sargent Dog Collar 70%
Sargent Wrought Steel and Brass..80%

PINCHERS.

Carpenters', wrt. iron, pol. steel jaws..... 25
Blacksmiths'..... 40
P. S. & W..... 25

PIPE.

WROUGHT.

List February, 1898.

1¼ and under, plain.....50&2½
1½ and under, gal.....50&2½
1¼ and over, plain..... 50&2½
1½ and over, gal..... 50&2½
Boiler tubes..... 50&2½

PLANES.

Stanley Planes, No. 100.....$.30 each
" " No. 130..... .25 each

PLIERS AND NIPPERS.

Swedish Side Cutting Pliers 40%
" End " " 40%
" Diagonal " " 40%
Halls Compound Nippers.....40%
U. D. F. & T. Co., all kinds.....Net

PLUMBS AND LEVELS.

Common.....75 to 75&5%
Disston's.....60%

POACHERS.

Buffalo Steam Egg No. 1, per doz. $7 20. 50%

POLISH.

POLISH—METAL.

U. S. Metal Polish Paste, 3 oz. boxes, per dozen, 50c; per gr. $4.50; ½lb boxes, per doz. $1.25; 1 lb boxes, per doz.....$ 2 25
U. S. Liquid, 8 oz. cans, per doz. $1.25; per gr..... 12 00
Barkeepers' Friend Metal Polish, per doz. $1.75, per gr..... 18 00
Universal Paste, 3 oz. boxes.....60%
Burnishine Liquid 5 lb..... 16 00

POLISH—STOVE.

Dixon's .....per gross, $5 75
Dixon's Plumbago.....per lb 6½c

POPPERS, CORN.

Round or Square, 1 qt....per doz.. 65%
Square, 1½ qt.....per doz., $1 00
Square, 2 qt.....per doz., 1 00

POST HOLE AUGERS AND DIGGERS.

Iwan's Patent Post Hole Auger....40%
Eureka Perfection Post Hole Digger, per doz.....$10 00
Atlas, per doz..... .... 8 25

POWDER.

IN CANISTERS.

Duck, 1 lb each.....45c
Fine Sporting, 1 lb each 75c
Rifle, 1 lb each..... .....$1 00

IN KEGS.

Duck, 6¼ lb kegs.....$2 50
Rifle, 6¼ lb kegs..... ..... 1 25
Rifle, 12½ lb kegs..... 2 25
Rifle, 25 lb kegs..... 4 00

PRESSES—FRUIT AND JELLY

Enterprise Manufacturing Co.....25%

PULLEYS.

Hay Fork, Svl, Sd Eye, doz $1 75@$2 75
Hot House, Awning, etc.....50%
Japanned Clothes Line.....50%
Japanned Screw.....50&10%
Japanned Side.....50&10%
Sash (Auger Mortise):
Common Sense, 1¾ in ..per doz. 19c
Common Sense, 2 in .. per doz. 20c
Empire.... ....17c.; 2 in., 22c

SASH PULLEYS.

Fox No. 3 or No. 7, 2½ wheel, ...25c per doz
Fox No. 9, 1¾ wheel.....20c per doz
Extra for plated Finish... 25c per doz
Extra for Anti-Friction Bronze Bushing.....10c per doz

RAZORS.

Fox Razors No. 42....per doz. $20
" " " 44.... " " 24 00
" " " 82..Platina " 24 00
Discount 40%
Rantankarus..... " 16 00

REGISTERS.

List Sept. 1, 1901.

Black Japanned Registers, Ventilators, Faces and Borders, ...70%
White Japanned Registers, Ventilators and Faces..... .....70%
Bronzed Finishes in Imitation of Gold, Silver, Copper or Bronze 70%
Nickelplated..... .....70%
Electro-Plated in Brass, Bronze, Copper or Oxidized Silver.....70%
White Porcelain.....60%
Solid Brass and Bronze Metal.....50%

RIVETS AND BURRS.

Coppered Iron Rivets.....60&5%
Tinners Rivets.....60&5%

ROOFING SUPPLIES.

EAVE TROUGH.

"Perfection" Galvanized Eave Trough.....75&10%
"Eclipse" Galvanized Eave Trough .....75&10%
Double Bead Galvanized Slip Joint Eave Trough.....75&10%
Double Bead Galvanized Lap Joint Eave Trough.....75&10%

GUTTERS.

Roof Gutters, Galvanized.....7 &10%

PIPE.

Plain Round Pipe, Galvanized, Nested.....60&20&2½%
Plain Round Pipe, Galvanized, Unnested.....60&20%

VALLEYS.

Valleys, in Rolls, IC and IX Terne.70%
Valleys, in Sheets, IC and IX Terne.....70%

HOOKS.

Flashing Hooks.....10%
Wrought Conductor Hooks.....60%

CUT-OFFS.

Kuehn's Galv..... 60%
Acme Galv..... 10&10%
Acme Tin.....60&10%
Centennial Tin..... ...20%

EAVE TROUGH HANGERS.

Eave Trough Hangers, Single and Double Bead, Imperial.....10%
Eave Trough Hangers, Single and Double Bead, Wire.....

ELBOWS.

One Piece Conductor Elbows, Galvanized, Corrugated..... 60%
Adjustable Elbows, Tin, ...50%

PREPARED ROOFINGS.

Imperial 2-ply Tarred Roofing complete..... $1 75 per sq.
Imperial 3-ply Tarred Roofing, complete.....$2 00 per sq.

ROPE.

	Per lb.
Manilla, 7-16 inch diameter and larger.....	9½@10c " "
Manilla, ⅜ in.....	9¼@9½c " "
Manilla, ¼ and 5-16 in.....	10½@10¾c "
Sisal 7-16 in. and larger	7@7¼c "
Sisal, ⅜ inch	8@8¼c "
Sisal, ¼ and 5-16 in.....	8@8¼c "
Sisal, Medium Lath Yarn	9@9¼c " "

SASH CORD.

Braided, Drab.....lb 25c
Braided, White common..lb 17½@18c
Cable Laid Italian ....lb, A 18c, B 16c
Common India.....lb 9c@9½c
Cotton Sash Cord, twisted....12@16c
Patent Russia.....lb 12½@13c
Cable Laid Russia.....lb 13½@14c
India Hemp, braided.....lb 14@15c
India Hemp, twisted.....lb 10@12c
Patent India, twisted.....lb 10@12c
Pearl Braided, cotton .....lb 17@18c
Massachusetts, white.....lb 22½c
Massachusetts, drab.....lb 20½c
Eddystone Braided, cotton ....lb 19c
Harmony Cable Laid Italian....lb 18c
Ossawan Mills:
Crown, Solid Braided, white ..lb 18c
Braided, Giant, white.....lb 17c
Peerless:
Cable Laid Italian.....16c
Cable Laid Russian.....14c
Cable Laid India..... 12c
Braided India.....18c
Phœnix, white.....19c
Samson:
Braided, Drab Cotton .....lb 32½c
Braided Italian Hemp.....lb 32½c
Braided, Linen.....lb 49c
Braided, White Cotton, Spot.lb.28½c
Silver Lake:
A quality, Drab, 40c.....15%
A quality, White, 35c.....15%
B quality, Drab, 35c.....15%
B quality, White, 30c.....15%
Italian Hemp, 40c.....15%
Linen, 57½c.....15%

SASH LOCKS.

Ives, Patent.....60@60&5%
Payson's Perfect.....Net
Payson's Signal (new list).....Net

SAWS.

Atkins' Circular.....Net
Atkins' Band.....Net
Atkins' Cross Cuts.....Net
Atkins' Mulay, Mill and Drag.....40%
Atkins' One-Man Saw.....Net
Atkins' Circular Solid and Inserted Tooth.....50%
Atkins' Bands over 2 in. wide.....60%
Atkins' Bands under 2 in. wide.57&10%
Atkins' Mill, Mulay and Drag.... 50%
Atkins' Cross Cuts..... 40%
Atkins' One Man.....40&10%
Atkins' Narrow Cross Cuts.....40%
Atkins' Wood Saws and Blades.40&10%
Atkins' Hand Saws.....40%
Atkins' Compass Saws.....50%
Atkins' Butcher Saws.....40&10%
Disston Circular Solid and Inserted Tooth.....50%
Disston Cross Cuts.....Net
Disston Narrow Cross Cuts.....Net
Disston, Mulay, Mill and Drag....40%
Disston Framed Woodsaws.....35%
Disston Woodsaw Blades.....40%
Disston Woodsaw Rods.....25%
Disston Handsaws. Nos. 12, 99, 9, 16, D100, D8, 120, 76, 77, 8.....25%
Disston Hand Saws, Nos. 7, 8.....30%
Disston Compass, Keyhole, etc....25%
Disston Butcher Saws and Blades.35%

SAW FILERS

Stearns'.....25%
Silent saw.....35%
Sargent's.....60&30%
Reading.....37½%

SCALES.

Family, Turnbull's .....30@30&10%
Hatch, Counter:
Platform, 4 lb. by ½ oz..doz...$5.75
2 Platforms, 8 lb. by ¼ oz. doz $16 00
Union Platform, Plain.....$1.75@$2.00
Union Platform, Striped..$1.85@$2 15
Chattillon's Eureka.....25%
Chattillon's Favorite.....40%
Chattillon's Grocers' Trip Scales ..50%
Pelouze Scales, Household Counter, Confect. Postal, Ice, &c.....50%
"The Standard" Portables..... 45%
"The Standard" R. R. and Wagon 50%

SCREWS.

BENCH AND HAND.

Bench, Iron.....per doz. 60%
Bench, Wood, Beech..per doz. $3 50
Hand, Wood.....30%

COACH, LAG AND HAND RAIL.

Coach and Lag, Gimlet Point, list Sept. 20, 1899.....75@75&10%
Hand Rail, list Jan. 1, 1871..... ..75%

JACK SCREWS.

ack Screws.....70%

WOOD.

MANUFACTURERS' CIRCULAR PRICES

New List.
Flat Head Iron 87½%
Ro.nd and Oval Head Iron.....85%
Flat Head Brass.....85%
Round and Oval Head Brass.....82½%
Flat Head Japanned.....82½%

SCYTHES.

Blood's.....$ 8 50
Clover..... 8 50
Grain Clipper, Blood's..... 10 50
Hollow Clip..... 8 50
Silver Clip..... 8 50
Honest Dutchman..... 8 50

SHEARS.

	7	8	9 in.
Best.....	$16.00	$18.00	$20.00 gro.
Good.....	13.00	15.00	17.00 gro.
Cheap....	5.00	6.00	7.00 gro.

Straight Trimmers, &c.:
Best Quality Jap.....70@70&10%
" Nickel.....60@60&10%
Fair qual. Jap..... 80@80&5%
" Nickel .....75@75&10%
Tailors' Shears.....40@40&10%
Acme Cast Shears.....40@40&5%
Heinisch's Tailors' Shears. 40@40&5%
Wilkinson's Hedge 50%
Wilkinson's Sheep.....1900 list, 50%

SHINGLES, METALLIC.

Eastlake I. C. Tin Shingles, painted, pr sq.....$4 25
Eastlake I. C. Tin Shingles, galvanized, pr square.....$6 00
Octagon Fluted I. C. Tin Shingles, painted, per square..$5 50
Octagon Fluted I. C. Tin Shingles, galvanized. pr sq....$7 25

SIFTERS.

Eclipse.....per gr $15 00
Hunter's Genuine.....per gr $16 00

SKATE SHARPENERS.

Skate Sharp., Eureka, per doz $2 00 net
Washer Cutters, Woodard's. per doz.....$2 50 net

SLATE.

GENUINE NO. 1 BANGOR.

24x14	$3 50 pr sq.	20x10	$4 50 pr sq
24x12		18x10	
12x 8		18x 9	
22x11		16x 8	
20x12	$3 75 per sq.	16x10	$4 25 pr sq
18x12		16x 9	
16x12			
14x10		12x 7	$3 25 pr sq
14x 8		12x 6	
14x 7			

GENUINE NO. 1 BANGOR RIBBON.

24x14	$3 00 pr sq.	20x10	$3 50 pr sq
24x12		18x10	
22x11		18x 9	
20x12	$3 25 pr sq.	16x10	
14x 8		16x 8	
14x 7			

SNAPS.

German .....40@40&10%
Covert Mfg. Co.:
Derby.....35&2%
High Grade .....45@2%
Jockey.....40&2%
Trojan .....45&2%
Yankee.....35&2%
Yankee, Roller.....30&2%
Covert's Saddlery Works:
Banner.....60&10%
Crown.....60&10%
Model .....60&10%
Triumph .....60&10%
W. & E. T. Fitch Co.:
Bristol .....40&10%
Empire.....50&5%
German 40%
National .....50&5%
Perfect.....45%
Clipper.....50&5%
Champion.....40%
Security.....40%
Victor.....60&5%
Oneida Community:
Solid Steel.....65@65&10%
Solid Swivel.....65&10@65&10&10%
Sargent's Patent Guarded...66⅔&10%

SOLDERING FURNACES.

No. 3 Gems tin reservoir.....$6 00
No. 6 Gems copper reservoir..... 8 50
Gem Gas Pots..... 3 25
Clayton & Lambert No. 1 Fire-Pot 6 00
Clayton & Lambert's Special Fire-Pot..... 4 50

SPRINGS, DOOR.

Star (Coil) list Oct. '95.....net
Torrey's Rod 39 in. Per doz. .....$1 20@$1 25
Warner's No. 1.....net 75

SQUARES.

Steel and iron..... .....70&10%
Nickel plated.....65, 10&5%
Try squares and bevels.....65, 10&5%
Disston's.....45%
Bemis and Call, pocket.....80%
Winterbottom's try & mitre..... 30%
Starrett's..... .....25%

STAPLES.

Barbed Blind .....per lb., 10c
Poultry Netting.....per lb., 5c

STAPLE PULLERS.

Russell Staple Pullers..per doz., $9 00

STOVE PUTTY.

1, 10 & 25 pound Cans.....per lb., 5c
500 pound Kegs.....per lb., 4½c

STROPS.

RAZOR.

Emerson.....60 to 60&5%
Imitation.....20, 10&5%
Torrey's.....20%
Tower & Lamont.....per doz $4 00
04 Combination.....per doz 3 75

TACKS.

List Jan. 15, '99.
Carpet Tacks, American.....90&40%
American Cut Tacks.....90&30%
Swedes Iron Tacks.....90&40%
Swedes Upholsterers' Tacks.....
.....90&40&10%
Gimp Tacks .....90&40&10%
Lace Tacks .....90&40&10%
Trimmers' Tacks.....90&30%
Looking Glass Tacks .....70&10%
Bill Posters' and Railroad Tack90&40%
Hungarian Nails.....80&15%
Common and Patent Brads....80&10%
Trunk and Clout Nails.....80&10%

TRAPS.

GAME.

Oneida Pattern .....75&5@75&10&5%
Newhouse .....45@50%
Hawley & Norton.....65@5&70%
Victor (Oneida Pattern) .. 75@75&10%
Star (Blake Pattern) ....65&10@70&5%

MOUSE AND RAT.

Mouse, Wood, Choker, doz. holes .....8½@9c
Mouse, Round or Square Wire, doz.....$0.85@1.00
American Pattern French Rat and Mouse Traps—
No. 1, Detroit Marty Pattern, per doz. $4 50; in ½ gro. lots, per doz.....$4.00
No. 2, Detroit Marty Pattern, per doz, $3.25; in ½ gro. lots, per doz..... $3.00
Detroit Marty Pattern Mouse, per doz. $2.00; in ½ gro. lots, per doz.....$1.75
Diamond Joe Mouse Traps, per doz.....60c
Diamond Joe Rat Traps, per doz.$1.00
Marty French Rat and Mouse Traps (Genuine:)

TWINE.

Flax Twine—	BC	B
No. 9, ¼ and ½ lb. Balls...	20c	24c
No, 12, ¼ and ½ lb. Balls ...	17c	20
No, 18, ¼ and ½ lb. Balls ...	14c	17c
No. 24, ¼ and ½ lb. Balls ...	14c	17c
No. 36, ¼ and ½ lb. Balls...	13c	16c

Chalk Line, Cotton, ½ lb. Balls18@20c
Cotton Wrap., 5 lb. Balls to lb 16 to 20c
3-Ply Hemp, 1½ lb. Balls (Spring Twine) .....12@15c
3-Ply Hemp, 1 lb. Balls.....12@15c
3-Ply Hemp, 1½ lb. Balls .....
2, 3, 4 and 5-Ply Jute, ½ lb. Balls... 8c
Mason Line Linen, ½ lb. Balls 45c
No. 264 Mattress, ¼ and ½ lb. Balls 34c
Wool.....5½@6c

VISES.

Solid boxes.....40%
Parker's.....20%
Howard's.....35%
Bonney's.....35%
Trenton.....40%
Stearns'.....50%
Cheney's.....12½%
Massey's.....25%
Parallel.....30&5%
Holland's.....35%
Stevens'.....25%
Miller's Falls.....40%
Prentiss.....20%
No. 1, Rat each $1.12½; per doz. $12.00
No. 3, Rat, per doz. $6.00; case of 50.....$5.25 doz.
No. 3½, Rat, per doz $4.75; case of 72.....$4.25 doz.
No. 4, Mouse, per doz. $3.50; case of 72.....$2.75 doz.
No. 5, Mouse, per doz. $2.75, case of 72.....$2.25 doz.
Schuyler's Rat Killer, No. 1, per gro. $30.00; No. 2, per gro. $30.00; Mouse, No. 3, $18.00.....50%

FLY.

Balloon, Globe or Acme..... doz $1.15@1.25; gro. ... $10.50@11.00
Harper, Champion or Paragon.... doz. $1.25@1.40; gro....$12.00@12.50

TROWELS.

Disston Brick and Pointing 30%
Disston Plastering.....25%
Disston "Standard Brand" and Garden Trowels.....40%
Never-Break Steel Garden Trowels.....gro. $7.00
Peace's Plastering.....30%
Rose Brick and Plastering.....25&5%
Woodrough & McParlin Pl'st'ring.

WASHERS.

LEATHER, AXLE—

Solid.....80&10&10@85%
Patent.....85&10@85&20%
Coil: ⅜ 1 1⅛ 1¼ inch.
11c 12c 13c 15c per 100

IRON OR STEEL.

Size bolt 5-16 ⅜ ½ ⅝ ¾
Washers $5.20 $4 30 $3.00 $2.80 $2.60
In lots less than one keg add ¼c per lb; 5-lb boxes add ½c to list.

CAST WASHERS.

Over ½ inch, barrel lots per lb .....1½@1¾c

WELL WHEELS.

8-in., $2.20.....10-in., $2.60
12-in., $3.25.....14-in., $3.25

WIRE AND WIRE GOODS.

Brt. and Ann., 6 to 9, 70&10@70&10&5%
Brt. and Ann., 10 to 18, 72½@72½&10%
Brt. and Ann., 19 to 26, 75&7½@75&10%
Brt. and Ann., 27 to 36.....
.....75&10&5@75&10&7½%
Cop'd and Galv., 6 to 9, ...70@70&10%
Cop'd and Galv., 10 to 18.....
..... 70&10@70&10&5%
Cop'd and Galv., 19 to 26.....
.....75&7½@75&10%
Cop'd and Galv., 27 to 36.....
.....75&10@75&10&5%
Tinned, 6 to 14.....75@75&5%
Tinned, 15 to 18 .....70&5@70&10%
Tinned 19 to 26.....70@70&5%
Tinned, 27 to 36 .....65&10@70%
Annealed Wire on Spools.....
.....70&5@70&10%
Brass and Copper Wire on Spools .....60&5@60&10%
Brass, list Feb. 26, '96.....25%
Copper, list Feb. 26, '96.....15%
Cast Steel Wire.....50%
Stubs' Steel Wire, $6.00 to £.....40%

BRIGHT WIRE GOODS.

List April 1, 1901.....85@85&10%

WIRE CLOTH AND NETTING.

Galvanized Wire Netting....85@85&5
Ptd Screen Cloth per 100 ft $1.00@$1
Light Hardware Grade:
2-8 Mesh. Plain (8c list) sq ft.... 1½c
2-8 Mesh. Galv. (8c list) sq ft....2½c

WRENCHES.

Agricultural.....70&10%
Case lots.....75&10%
Acme.....60&5%
Baxter's S.....60&10%
Bull Dog.....70%
Coe's Genuine.....40&10&5%
Coe's "Mechanic's".40&10&10&5&5%
Alligator .....60&10&10%
Bemis & Call's:
Adjustable S.....35&5%
Adjustable S Pipe.....40%
Briggs' Pattern.....30&10%
Combination Black.....40&5%
Combination Bright.....40%
Cylinder or Gas Pipe.....55%
Extra Heavy.....45%
Merrick's Pattern.....50%
No. 3 Pipe, Bright.....55%
Bindley Automatic.....30%
Boardman's 32½%
Donohue's Engineer.....40&10%
Eagle.....50&10%
Gem Pocket.....80%
Hercules.....70%
Knife Handle, Machinists' (W & B.): 0&10%
Case lots.....50&5%
Less than case lots.....60
Improved Pipe (W. & B.).....50&10
Solid Handles, P. S. & W.....&10 &
Stevenson..... 56

Wants and Sales.

For yearly subscribers to THE AMERICAN ARTISAN will be inserted under this head advertisements of six lines WITHOUT CHARGE, for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, businesses for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they read the advertisement in THE AMERICAN ARTISAN.

BUSINESS CHANCES.

PATENTS.—H. W. T. JENNER, Patent attorney and mechanical expert, 608 F street, Washington, D. C. Established 1863. I make an examination free of charge and report if a patent can be had and exactly how much it will cost. Send for circular. Member of Patent Law Association.

PATENTS HUBERT E. PECK, 623 F St., N. W. Washington, D. C. Consulting Expert in Patent Causes, U.S. and Foreign Patents. Send for leaflet on "Rejected Patent Applications." Honest work but no "Something for Nothing" offers.

For Sale—Hotel property in a good paying locality; good reasons for selli g. Address Box 47, Huntley, Mion. 12

For Rent—Hardware store building, including shelving, counters, etc., in best city in North Dakota. Population, 3,500; only two hardware stocks in the town. This is a "snap" Address "Snap," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 12

For Sale—First-class stock of hardware, stoves and tinware, in a good, live town of 500. Good reasons for selling. Address, Lock Box 42, Ashton, Iowa. 12

Wanted—Small stock of hardware; some near western town. Address J. A. Denkman, Bennett, Iowa. 12

For Sale—A small stock of hardware and harness fittings in the best wheat country in the world. For particulars, address Aiken Bros., Colton, Wash. 11

For Sale—A stock of hardware, tinware, stoves, etc., will inventory aoout $13,500, doing good business in a town of 5,000 inhabitants. Best of reasons for selling. About 60 miles from Chicago. Will take some trade in the way of small farm or city property. Address "C. J." care AMERICAN ARTISAN, 69 Dearborn St., Chicago. 11

Wanted—A partner in established hardware, stove and tinware business. Nice stock, good trade, best county in the state, good town, population about 500. For particulars, address 110 E. 2nd St., Rushville, Ind. 11

For Sale—A business that has been established for ten years. A stock of hardware, tools and house furnishing goods in first-class condition. Ill health is cause of sale. First-class chance for right party. Address "Box Ten," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 11

For Sale or Trade—Two story brick and steel siding 24x98. Location best in town. Will guarantee rent at $40 per month for ten years. Value of lot and building, $6,000. Will trade for hardware stock, etc. Investigate. Address Box 299, Alden, Minn. 11

Wanted—Stock of hardware, etc. $2,500 to $4,000. Have a splendid modern residence; all conveniences. Chicago best suburb. Steam heat. Everything first-class. Corner lot, 125x165, worth $7,000, to exchange. Will take long time mortgage for difference and make quick deal. Residence now rented for $30 per month. Present tenant will stay indefinitely. Address "Swayze," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 10

For Sale—A $3,500 stock of hardware, stoves, etc., in a thriving Iowa town of 4,000. Stock first-class and trade established seven years. Doing a good business. An excellent chance to step into a paying trade. Shop in connection. Address "Shop," care of THE AMERICAN ARTISAN, 69 Dearborn St, Chicago, Ill. 10

For Sale—A small stock of stoves, tinware and house furnishing goods with set of plumbers' and tinners' tools. Located in a central Pennsylvania town of about 2,500. A good chance for a party that can do both tinning and plumbing. Enquire of "Plumbing & Tinning," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 10

For Sale—Half interest in a first-class stove repair business in large town. This is a growing business and a first-class opportunity for an energetic young man to get a paying life business. Reason for selling: Have so much business of another nature that I cannot give any time to this. Only about $1,500 required in the deal. Address "Box L," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 10

For Sale—Small hardware and stove store in best of location in old and prosperous Chicago suburb, and enjoying a heavy trade. Will invoice about $2,000. Also large job and cornice shop with set of tinners' tools in splendid condition. Twelve miles from Chicago business center. Best of reasons for selling. Address, "Center," care of THE AMERICAN ARTISAN, 69 Dearborn street, Chicago, Ill. 10

For Sale—Stock of hardware and furniture in a live county seat and R. R. Division town in western Nebraska. Doing a good business. The only new furniture stock in town. Address "Furniture," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 9

Wanted—A good location for hardware store, or buy a small stock in a good lively town in Minnesota or Dakotas. Address, Lock Box 70, Stewartville, Minn. 8

Wanted—To exchange Michigan farm for country hardware. Address, Box 38, Fayette, Ohio. 8

FOR SALE—A good clean stock of Hardware, Stoves, Tinware and Building for Sale or Rent, in a good location in the City of Milwaukee. For full particulars call on or address Wm. Frankfurth Hardware Co., Milwaukee, Wis. 8

TINNERS' TOOLS.

Wanted—A second hand Crimping machine to crimp galvanized iron; want same to be in pretty good condition. H. Danz, Green Bay, Wis. 12

For Sale—Tinning and Plumbing Department of good hardware doing good business; a rare chance for a good man. Address "Chance Sale," care of THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago, Ill. 12

For Sale—One Peck, Stow & Wilcox double Seamer, a new machine, only been used about one year in all. For price enquire at J. G. Widmann, Wanzeka, Wis. 11

Wanted—1 dozen or more second-hand four caster stove trucks. Martin's adjustable preferred. McGrath & Widmayer, Hampshire, Ill. 10

For Sale—A pair of P. S. & W. 30 inch shears and one P. S. & W. 30 inch tin folder. Box 21, Marengo, Ill. 9

For Sale—A stock of tinners' tools, in good condition. Crafts & Montgomery, Wahpeton, N. Dak. 9

For Sale—Set of tinners' tools, square shears included, cheap for cash. List and price on application. Box 332 Edgerton, Wis. 5

For Sale—One Shepard's back-geared, screw cutting, foot-power lathe 13 in. x 60 in., with gap and milling attachment, 3 and 4 jaw chucks and lots of tools, used very little; not a scratch on it; cost $265, will sell for $200. Write for better description to C. A. Bergh, Mondovi, Wis. 5

Set of tinners' tools for sale cheap, in good condition. Send for list. Joe G. Harris, Box 38, Decatur, Adams Co., Ind.

HELP WANTED.

Wanted—At once; a good, first class tinner who can take my place in shop, can do in and outside work; must be sober and steady; prefer one who can speak German, good wages and steady job the year round to right man. Write me at once. A. S. Rice, Genoa Jct., Wis. 12

Wanted—At once, Good Tinner and Furnace Man. Geo. W. Stewart, Washington, Ia. 12

Wanted—At once, a good young man, that is a first class tinner and understands plumbing and furnace work, will pay good wages and give steady work the year around. Want a man at once. Maher & Son, Preston, Ia. 12

WANTED—Man familiar with stove trade to handle Stove Repairs as a side line on a salary basis. Box Z, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 12

Tinner Wanted—For general job work; one who has had some experience in plumbing. State wages expected. Address, Fred Thomas, Menominee Falls, Wisconsin. 12

Wanted—Tinner, who can clerk in store and keep stock. None but hustler need apply; steady job; state wages. Write at once. Greig Bros., Mitchell, Iowa. 12

Wanted—An experienced stove salesman, for city and country. Address "C & C.," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 12

Wanted—A hustling, first-class tinner who understands pump and furnace work. Prefer one who speaks Danish language. Cannot promise steady job after Christmas. State wages, reference and experience. Address Lock Box 299, Alden, Minn. 11

Wanted—Tinner. Address W. B. Frymire, Bloomfield, Neb. 11

Wanted—A young genuine American with some experience in store and tinshop. Must have a man at once. Bruns, Lake Mills, Wis. 11

Wanted—A good all-around tinner who understands iron pipe work, hot water heating and furnace work. Must be sober, a hustler, a married man and a German. A good job to the right man. Address "Man," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill 10

Wanted—A young man with some experience as tinner, competent to repair old stoves and gasoline stoves, also to do plain bicycle repairing. Steady employment to the right man. State wages and experience. J. B. Sperry, Port Huron, Mich. 10

Wanted—Good, sober furnace man who has had experience in hot water and steam heating, roofing, spouting and understands plumbing. Give age and experience. State wages. Jno. McKinney & Son Co., Piper City, Ill. 10

Wanted—At once: a good tinner who understands hot water, steam and furnace work and has a fair knowledge of plumbing. Will pay good wages and give steady employment to the right man. E. A. Pease, Redwood Falls, Minn. 10

Wanted—A good tinner for all-around work. Steady job to the right man. Bradberry Bros., Hurley, So. Dakota. 10

Wanted—At once; five first-class sheet metal workers. Steady employment to right men. Klauer Mnf'g. Co., Dubuque, Ia. 10

Wanted—First-class tinner who understands pumps and furnace work, and is accustomed to clerk in store. Must be temperate. Steady work, good pay. Colby Mercantile Co., Hamilton, Mo. 9

I want a good first-class tinner to take my place in the shop at once. Must be a good all-around tinner. State time you have been at the trade and give reference. Address Bay Bros., or write me. Good place to work and good wages. B. B. Morrison, 317 South Stee St., Belvidere, Ill. 9

Wanted—An experienced hardware clerk, one not afraid of work, and who can speak German. D. H Stinson, Kendallsville, Ind. 9

Wanted—Mounting shop foreman; have a good position for thoroughly competent man. Thos. Hamilton, Sup't. Joliet Stove Works, Joliet, Ill. 9

Wanted—A high-grade traveling salesman to sell furnaces as a side line on commission. The Forest City Foundry & Mfg. Co., Cleveland, O. 9

Wanted—Salesmen to sell mitres and gutter ends to the jobbing trade only. Good commission. Address Central Mitre Co., 2115 N. Senate Ave., Indianapolis, Ind. 9

Tinner Wanted—Steady employment to hustling young man. Must bring reference. West & Markham, 803 120th St., Chicago, Ill. 9

Wanted—At once: two first-class cornice men and tinners. Steady work. "Booze fighters" need not apply. E. H. Groves, Mgr., 1913 Broadway, Mattoon, Ill. 9

Wanted—At once; a first-class tinner, good on job work; also furnace work. Wages $2.50 per day. Address W. M. Forward Co., Sycamore, Ill. 9

Tinner Wanted—A good No. 1 tinner; to do furnace work, all kinds of tin work and pump repairing. Only first-class, sober workman need apply. M. Reinhardt's Sons, Lincoln, Ill. 9

SITUATIONS WANTED.

Situation Wanted—As salesman in hardware store. A1 builders' hardware and stove salesman. Would travel, if necessary; can furnish references. Address "A. R.," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 12

Situation wanted—By a young man 21 years old, and am German. Have had 5 year's experience as tinner and hardware clerk, can also repair bicycles and oil stoves. Would like a job as clerk. Nothing but a steady job wanted. Address "Tin," care the AMERICAN ARTISAN, 69 Dearborn St, Chicago, Ill. 11

Situation Wanted—By sheet metal worker. Familiar with heating and ventilating. Can lay out his own work and make plans and drawings where necessary. Address "Box 85," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 10

Situation Wanted—As salesman in hardware where it requires a man of ability and experience. Have had 15 years of actual experience. Can keep books and do shipping. Would prefer a country town. Address "W. H.," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 9

Wanted—Situation as clerk in a hardware store. Have had some experience in tinning. Age 19 years. G. J. Sturm, Flora, Ill. 9

Wanted—Situation, by practical sheet metal worker, 12 years' experience; hardware store preferred. Must be a steady situation, in the city of Chicago only. Address "Steady," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 9

Situation Wanted—Traveling salesman visiting the jobbing trade and large dealers only, wants a situation, side line or otherwise. Address Salesman, care of Central Mitre Co., 2115 N. Senate Ave., Indianapolis, Ind. 9

SPECIAL NOTICES.

Good Tin Business

in Cripple Creek, Colo.; fine set tools; central location; ground rent only $5.00 per month. Some stock; building and all for $500.00. Mining reason for selling. Address "C. C.," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 12

WANTED.

Position as bookkeeper or auditor. Have had twelve years' experience. Have lately been manager of large manufacturing firm in Wisconsin. Best of references. Address:

"BOOKKEEPER,"

Care of THE AMERICAN ARTISAN. 11
69 Dearborn St., Chicago, Ill.

WANTED

Permanent situation by an experienced stove manufacturer, as superintendent or manager. Good character. Steady habits and competent. Address,

"Superior,"

care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill.

YOUNG MAN

With good connections in British Isles and Continental Europe wishes agencies for a few lines of American manufacture. Prompt attention. References. Address

MONTAGUE,
39 Paradise Street,
Liverpool, Eng.

WANTED.

A position as superintendent of manufacturing plant making general line of hardware and electro plated wares. Have had 15 years' experience with one of the largest plants in the United States. Address,

"Wilmington,"

care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 9

50 Hardware Ads...	50c
50 Bicycle Ads.....	50c
50 Furnace Ads	50c
50 Implement Ads..	50c
100 Steel Range Ads.	100c

These Ads Are reproductions of our best Ads. Catchy Headlines increased our sales and will yours. Stamps taken. Address H. P. Townley Terre Haute, Ind.

Jos. W. Young,

Alta, Iowa, writes:

"For goodness sake take my ad. out of your paper! I can't answer half the letters. Have a good job. Many thanks. I wish you great success."

DIXON'S SILICA GRAPHITE PAINT

FOR TIN OR SHINGLE ROOFS AND IRON WORK. Tin roofs well painted have not required repainting for 10 to 15 years.
IT IS ABSOLUTELY WITHOUT AN EQUAL.
If you need any paint it will pay you to send for circular.

JOSEPH DIXON CRUCIBLE CO., Jersey City, N. J.

The Key to Success

Lies in original advertising. Other dealers are using our

Advertising Cuts for Hardware Men.

WHY NOT YOU?

They are the cheapest on the market.
They are specially adapted for hardware stores.
They are unique and original.

SEND FOR LARGE 4 PAGE CIRCULAR.

Daniel Stern, 69 Dearborn St., Chicago.

The man who does not advertise, says the *Ashland, O., Gazette*, simply because his grandfather did not, ought to wear knee breeches and a queue.

The man who does not advertise because it costs money should quit paying rent for the same reason.

The man who does not advertise because he tried it and failed, should throw away his cigar because the light went out.

The man who does not advertise because he doesn't know how himself, ought to stop eating because he can't cook.

The man who doesn't advertise because somebody said it did not pay, ought not to believe that the world is round because the ancients said it was flat.

CUT THIS OUT.

To the Publishers THE AMERICAN ARTISAN,
69 Dearborn St., Chicago.

Please send us THE AMERICAN ARTISAN each week for three months. At the end of that time we will remit Two Dollars, for one year's subscription, or 50 cents in case we decide to discontinue.

NAME _____

ADDRESS _____

TOWN _____

STATE _____

MICA

ASSORTED PACKAGES.

Put up expressly for the Retail Trade.

ONE POUND—4 SIZES. ¼ lb. each size.

North Carolina -	$2.00	4½ x 6	2½ x 3
Wyoming - - -	1.70	2¾ x 3¼	2¼ x 4½

TWO POUND—8 SIZES. ¼ lb. each size.

North Carolina -	$3.75	2 x 3	2¼ x 4
		2 x 4	2¾ x 3½
Wyoming - - -	3.20	3 x 3	2½ x 4½
		3 x 4½	4½ x 6½

THREE POUND—12 SIZES. ¼ lb. each size.

North Carolina -	$5.20	4½ x 5	2¾ x 4
		¾ x 4½	2½ x 3½
Wyoming - - -	4.25	3 x 3	2 x 4
		2¼ x 4½	2¾ x 2¾
		2½ x 3	2¾ x 3½
		2 x 3	5 x 6½

ABOVE PRICES NET. NO DISCOUNT.

EUGENE MUNSELL & CO.,

218 Water St., NEW YORK and 117 Lake St., CHICAGO.

ILLUSTRATION SHOWING

JONES' RATCHET COPING SAW

IN OPERATION.

The Jones Ratchet Frame is constructed with a steel back and Ratchet arrangement (see illustration) which enables the workman to quickly set the blade at any angle by the handle and button at the other end of saw frame (see letter A).

Jones & Dommersnas,

31 & 33 Indiana St., - - - - CHICAGO.

C&B LINE

Pan-American Route

Between CLEVELAND and BUFFALO.

STEAMERS CITY OF BUFFALO AND CITY OF ERIE.

Both together being without doubt, in all respects, the finest and fastest that are run in the interest of the traveling public in the United States.

TIME CARD—DAILY—APRIL 15th to DEC. 1st.

Leave Cleveland 8 p. m. Arrive Buffalo 6:30 a. m. | Leave Buffalo 8 p. m. Arrive Cleveland 6:30 a. m.

ADDITIONAL SERVICE DURING JULY AND AUGUST DAILY EXCEPT SUNDAY.

Leave Cleveland ..... 8:00 a. m. | Leave Buffalo ..... 8:00 a. m.
Arrive Buffalo ..... 6:00 p. m. | Arrive Cleveland ..... 6:00 p. m.
Leave Cleveland Tuesdays, Thursdays and Saturdays 5 p. m. Arrive Buffalo 5:30 a. m.
Leave Buffalo Mondays, Wednesdays and Fridays 5 p. m. Arrive Cleveland 5:30 a. m.

All Central Standard Time. Orchestra Accompanies Each Steamer.

Connections made at Buffalo with trains for all Eastern and Canadian points, at Cleveland for Detroit and all points West and Southwest.

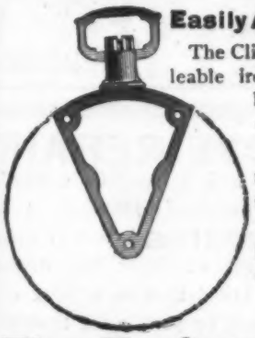
Ask ticket agents for tickets via C. & B. Line. Send four cents for illustrated pamphlet. SPECIAL LOW RATES CLEVELAND TO BUFFALO AND NIAGARA FALLS EVERY SATURDAY NIGHT, ALSO BUFFALO TO CLEVELAND.

W. F. HERMAN, General Passenger Agent, Cleveland, O.

The Lowell Hardware Co., Janesville, Wis., write:

"We could not do business without THE AMERICAN ARTISAN. We have received answers from our advertisement from all parts of the United States, and sold seven sets of tinner's tools from one advertisement."

The Brohard Damper Clip,



Easily Adjusted

The Clip being malleable iron, will not break in riveting.

Cost no more than all cast.

Sample free to introduce.

Write us.

The Brohard Co.

Phila., Pa.

U.S. INFALLIBLE METAL POLISH

IN PASTE, LIQUID OR POWDER

FOR ALL KINDS OF METALS

Best, Cheapest, Goes Farthest. Never dries up or shrinks. Money makers for everybody. Sold by the Jobbing trade. Sample free by mail. Address

GEO. W. HOFFMAN, MFGR.,

295 E. Wash St., INDIANAPOLIS, IND.

BRANCHES: 1 Park Row, New York City; 119 E. Madison St., Chicago, Ill.; 503 Montgomery Avenue, San Francisco, Cal.

Established 12 years

It Will Pay You

to illustrate your advertisements in your local papers. A sheet of comic advertising cuts sent on application.

These cuts are furnished with catch-lines showing their application to the hardware, stove and tinners' trades.

ADDRESS

Daniel Stern,

69 Dearborn St.

CHICAGO.

TIME

Time Flies and the hardware dealer who is not handling the **Buckeye Brand of White Lead Ground in Oil** is losing money every day he puts off writing us.

Buckeye Paint & Varnish Co., Toledo, O.

STOVE REPAIRS

are a bug-bear to many merchants because of wrong shipments, misfits, &c.; with **ORIGINAL STOVE REPAIRS** however there is a bright side and a big difference over the ordinary kind. Our ORIGINAL ORDER-BOOK will be of service to you in many ways, it will be sent with first shipment gratis.

UNION STOVE REPAIR CO.,
2852-2854 Archer Avenue, CHICAGO.

Repairs For all Stoves

Great Western Stove Repair Co.
MINNEAPOLIS, MINN.

Stove, Range and Furnace **REPAIRS**
OF ALL KINDS.
American Stove Repair Works,
186-188 West Seventh Street, ST. PAUL, MINN.

REPAIRS FOR ALL **STOVES** AND **RANGES.**

A. G. Brauer, 316-318 North Third St., ST. LOUIS, MO.

Champion Stove Clay

The only Stove Lining made of crucible materials.
Packed in 2½ lb., 6 lb., and 10 lb. pasteboard boxes and also in bulk.
Order it from your jobber.
The best and most refractory lining made.

BRIDGEPORT CRUCIBLE CO.
BRIDGEPORT, CONN.

FOR **MICA**
Sheet, cut or uncut, Powdered and Flake
WRITE TO
ASHEVILLE MICA CO.
ASHEVILLE, N. C.

Why not remodel your Oaks and Oval air-tights so as to use cast-iron where you now use sheet steel? More attractive!
Planished and Sheet Steel will be scarce.
The Gobeille Pattern Co., Cleveland, O.

THE GEO. W. COPE
STOVE PATTERN WORKS,
Randolph and Atwater Sts.
DETROIT, MICH.

Experience. Correctness.
Acme Pattern Works
STOVE and HEATER
Patterns
AKRON, OHIO.
Promptness. Satisfaction.

Indianapolis Artistic Pattern Works,
Cor. Fenneman and Minnesota Sts.
INDIANAPOLIS, IND.
Perfect Work. Right Prices.
Special Stove and Furnace Patterns.

B. S. ESTES,
Devil's Lake, N. D., writes:
"I have secured a good man, thanks to my ad. in The American Artisan. You have my heart-felt thanks."

REPAIRS FOR ALL STOVES

Pipe Dampers, Mica,
Stove Rods, Paste, Stove Putty,
Stove Knobs, Etc.

Wm. T. Dust Co.,
231 Brush St., DETROIT.

M. Brucker,
Manufacturer and Jobber of
Stove and Range Repairs.
FOUNDRY, OFFICE AND WAREROOMS
325 to 331 North Lincoln St.,
CHICAGO.

J. L. Morris Stove Repair Co.

Wholesale and Retail Dealers in

Stove and Range Repairs, Mica, Etc.

OFFICE AND WAREROOMS
29 and 31 Desplaines Street, Chicago.

Sole Western Agents for BURDETT, SMITH & CO., and other Manufacturers' Original Repairs.

To Stove Dealers
NOTICE.

Do you know that the new A-B dealers' stove polish is made dry and you can thin it as you wish. It is the cheapest, blackest, brightest and easiest polish to use—no dust—no rust—waterproof. Keeps in any climate. Put up in 5-lb. boxes—Patented. No tin cans to pay for. Mixes quicker than paste; no drying up, good always. Used by a great many stove manufacturers who are sending duplicate orders. Send for Free Sample and price list; it will save you money.

AYLING BROS.,
Sole Manufacturers and Patentees of A-B Stove Polish
Office and Works, 14 Haddon Ave.,
Address Department A. CHICAGO, ILL.

If
You want practical, up-to-date ideas about steam heating, furnace heating and hot water heating,
You should get the House Warming Manual.

If
You want the practical experience of many experts rather than the heating theories of one man,
You should get the House Warming Manual.

If
You desire estimates and plans of heating work that will save you many dollars in your work,
You should get the House Warming Manual.

Price, $3.50. For sale by all booksellers, or by
Daniel Stern, 69 Dearborn St., Chicago.

SELECTED
MICA
ONLY
Prepared expressly for the Stove and Hardware Trade.
Two Grades: "North Carolina" and "Nevada."
Price Lists and Discounts Sent on Application.
The Palermo Mica Co.,
115 BEEKMAN ST., NEW YORK.

ORDER YOUR
Repairs for Stoves, Ranges and Furnaces
FROM
City Stove Repair Co.
CLEVELAND, OHIO.
We guarantee prompt and careful attention. Send for Order Slips.

Black Silk
Stove Polish is as much blacker than blacking as blacking is blacker than black coffee. Put up in sizes to suit. This polish is IT when it comes to fineness and goodness. Write for Prices.

Lewis D. Wynn,
Sterling, Ill.

W. F. Rehbein, Grays Lake, Ill., writes....
"Your Journal is certainly a valuable paper for every tinner to have. From one notice in your paper I received from one to four letters per day. Please take out my notice as I have got a job, thanks to the American Artisan."

Bang! Bang!

The hunting season is here and the crack of the rifle is heard on moor and hill. Sportsmen are buying new hunting suits, ammunition, rifles, etc. We have the largest stock of hunting goods in the West, and can ship the dealer prompter than any of our competitors. There is no other hardware jobbing house west of the Mississippi that carries anywhere near so comprehensive a line of GUN REPAIRS as we do. Just send us that order for a new lock or ejector or other gun part your customer just brought in, and the first express car that leaves Omaha after our receipt of the order will be carrying the wanted part back to you.

Lee-Glass-Andreesen Hardware Co.,

OMAHA, NEB.

Peters Cartridges

Peters Cartridges

Our Referee Shell

Purple in color and handsome in appearance, is exclusively loaded with

King's Semi-Smokeless Powder.

Great as it is for Rifle and Pistol Shooting, this Powder is equally good for Shotgun purposes; has the good qualities of Nitro Powder at greatly reduced price. Produces little smoke, is very clean, of high velocity, low pressure, quick, strong, safe, even in pattern.

FINE FOR FIELD AND TRAP.

Recommended to all wanting the best for the least money.

Handy Book for Shooters and Sportsmen sent free to all applicants.

The Peters Cartridge Co.,

Government Square, Cincinnati, Ohio.

EASTERN BRANCH: T. H. KELLER, Manager, 80 Chambers Street, NEW YORK.

Peters Cartridges

Peters Cartridges

Lackawanna Railroad

The Scenic Line TO New York City

Palatial Solid Vestibuled Trains
Superb Dining Cars
(Meals a la Carte)
Observation Cars Latest Pullmans
Elegant Day Coaches

3 THROUGH TRAINS DAILY from CHICAGO 3

Leaving Chicago	Arriving New York
10.35 a. m.	3.35 p. m. next day.
2.30 p. m.	7.30 p. m. next day.
10.30 p. m.	7.10 a. m. 2d day.

Rates $18.00 First Class, $16.00 Second Class

CITY TICKET OFFICE: 103 Adams Street

GEO. A. CULLEN, Gen'l West'n Pass. Agt.

CHICAGO

O. C. Jamison, Homer, Ill., writes: "I FIND MY ADS. IN YOUR ESTIMABLE JOURNAL HAVE BROUGHT GOOD RETURNS."

Not in the Trust

No connection with any other Rogers Company.

Do Not Be Alarmed

The "TRUST" has secured a preliminary injunction against us in the U. S. Circuit Court, and we are restrained from using the name "Rogers" or "Rogers Bros." on silverplated ware until a trial is had upon the merits of the case.

We gave full notice that we were "NOT IN THE TRUST" and had no connection with any other Rogers Company or trade marks, and carefully emphasized the fact by means of circulars to the trade, by advertisements, and labels on the goods. Of this the Court said:

> "So far as it has asserted that its goods were not those of any other company, but were made by itself its statements are worthy of commendation."

We shall continue in business and by decision of the Court can advertise under and make and sell our goods with our full name:

SIMEON L. & GEORGE H. ROGERS COMPANY.

This we shall do and our goods will be made of the same high standard as before.

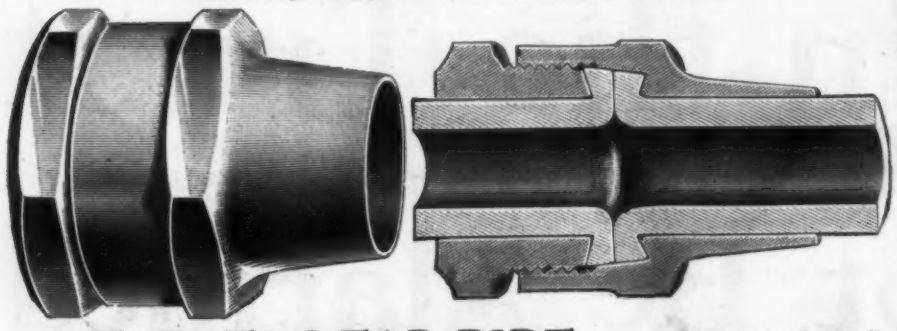
We ask of the trade that measure of its patronage which the merits of our goods, fair and equal treatment of customers, living prices, and their opposition to "Trust" methods may permit.

Simeon L. and George H. Rogers Company,

SILVERPLATERS,

FACTORIES:
HARTFORD AND WALLINGFORD, CONN. **P. O. Box 1205, Hartford, Conn.**

Patented May 28th, 1901. See Advertisement in Next Issue.



Novelty Couplings

Lead to Lead and Lead to Iron or Copper.

LEAD TO LEAD PIPE. A Perfect Substitute for Wiped Joints.

Water Back Faucet, Boiler Couplings, Etc.

SEND FOR COMPLETE CATALOGUE

The New Haven Novelty Machine Co., New Haven, Conn., U.S.A.

Trade "M&M" Mark

The "M & M" 450 CANDLE POWER ARC LAMP

Trade "M&M" Mark

THE BEST IS THE CHEAPEST.

STORE LAMP. Patented.

Burns 12 to 15 hours with one filling. Diffuses more light than any electric arc. Does not affect your insurance policy. Permitted by all insurance companies. Absolutely non-explosive, odorless and smokeless. Tried, tested and used commercially for three years. Over 25,000 in practical use. One satisfied customer says:

Joliet, Ill., Mch. 22, 1901.
MARTIN & MOORHEAD,
54 W. Washington St.,
Chicago, Ill.

Gentlemen: We used six of these lamps last year and kept an accurate account of the expense. The gasoline cost us $25 and the chimneys and mantels $20.46 making a total cost of $45.46 for six lamps for a year. We believe we have just as good light as though we had had six electric arc lights, which would have cost us $360.

Yours respectfully,
BARRETT HARDWARE CO.

STREET LAMP. Patented.

There are others. We are saving light consumers thousands of dollars every month. We will furnish full particulars on request. Agents wanted in all unoccupied territory. Exclusive territory given. Our Pressure Mantles without an equal for use with any gasoline pressure light

Acorn Brass Works, DEPT. 4, **Chicago.**

SPERRY'S SUGAR KETTLES.

Light, smooth, full measure and guaranteed perfect. Made from original patterns. Metal, the right kind in the right place. Ask your Jobber for them or write us.

D. R. SPERRY & CO.,
HOLLOW-WARE FOUNDERS,
BATAVIA, ILL.

Modern Sanitary Plumbing, Steam and Hot Water Heating.

A veritable encyclopedia of practical plumbing, written by James J. Lawler, the well known heating and plumbing expert; 400 pages large octavo, 6x9 inches in size. Describes and illustrates methods of plumbing as constructed at the present date. Tells how to correctly figure on any size or shape of building with steam or hot water. Tells how to find the heating capacity of any shape or make of boiler for steam or hot water heating. The illustrations are numerous. An invaluable work for practical men . . . . . .

Price $5.00.

Sent postpaid on receipt of price by

Daniel Stern,
69 Dearborn St., Chicago.

B. D. WADSWORTH, Eureka, Wis., writes: "Please discontinue my 'ad' for Tinners' Tools. This is a grand thing for the boys wanting tools, to buy or sell. No one in the Hardware or Tin-shop should be without **The American Artisan."**

R. B. WARD, Belleville, Kas., writes:

"Please take my advertisement, 'Tinner Wanted,' out of THE AMERICAN ARTISAN. Your paper certainly reaches the craft. I cannot find time to answer all the applications coming in."

NOTICE: THE 3rd EDITION OF THE LARGE **GREEN BOOK** OF HARDWARE SPECIALTIES IS COMPLETELY EXHAUSTED. WE HAVE, HOWEVER, A FEW MORE OF THE LITTLE **GREEN BOOK** OF HARDWARE SPECIALTIES ON HAND WHICH WE WILL BE PLEASED TO SEND ON APPLICATION.

UTICA DROP FORGE & TOOL CO.

SMITH & HEMENWAY CO. **THOMSON BROS. & CO.**

296 Broadway, NEW YORK CITY.

Ask your dealer for these goods.

Stanley Rule and Level Co.

IMPROVED CARPENTERS' TOOLS **Sold by All Hardware Dealers**

NEW BRITAIN, CONN.

THE "DISSTON SAW" WILL DO MORE WORK WITH LESS EXERTION AND HOLD ITS CUTTING EDGE LONGER THAN ANY OTHER BRAND OF SAW.

Fully Warranted as to Material and Manufacture.

Henry Disston & Sons, Inc.,
Keystone Saw Tool Steel & File Works.
Philadelphia, Penna.

For Additional Information Send a Postal For Our Pamphlet "Practical Hints To Mechanics."

"ENTERPRISE"

Fruit, Wine and Jelly PRESS

Extracts the Juice and Ejects the Skins and Seeds in one operation

No. 34, $3.00

Descriptive Catalogue mailed Free **Order through your Jobber**

Meat Juice Extractor

No. 21, $2.50

Ice Shredders

		per doz.
No. 33,	Tinned	$6.00
No. 34,	Nickeled	15.00

The Enterprise Manufacturing Co. of Pa., Philadelphia, Pa., U. S. A.

Sugar Kettle.

Sugar Kettles made to hold 6, 8, 10, 12, 15, 18, 20, 25, 30 and 35 gallons. Offered at attractive prices. Ready sellers.

Scotch Bowls, plain or ground, made in 3 sizes.

Write for our 1901 Catalogue. It will interest you.

Scotch Bowl.

Blacklock Foundry, South Pittsburg, Tenn.

Peoria Washing Machines.

BEST IN THE MARKET.
MADE WITH BALL-BEARINGS.

Have a Compound Lever Handle which greatly reduces the work of wash days. The motion used in vibrating the handle takes the strain from the back and lets the arms do the work with a great reduction in labor.
Send for Catalogue.
Secure the Agency.

CLARK, QUIEN & MORSE,
PEORIA, ILL.

Gee Whizz Washer

A Novelty and a Winner.
Does what it is intended and guaranteed to do.

Made without hoops or staves, will neither shrink, leak nor fall down. The labor saving washer of 20th Century. Our circular describes the reflex motion and tells why it whirls, rubs, slaps, squeezes and sucks the dirt out of the clothing.
You want the agency.
Write for particulars to

RANDLEMAN & SONS, Des Moines, Iowa.

THE ORIGINAL

BRAMMER Rotary Washer.

An especially well made and light running machine and GUARANTEED TO GIVE SATISFACTION.
A simple, powerful and durable movement. This very substantial tub is made from a select quality of Cypress lumber.
Made also in the detachable leg style, as well as square.
We manufacture the most complete and satisfactory line of Washers on the market. Send for illustrated catalogue.

BENBOW-BRAMMER MFG. CO.,
1007 N. 13th Street,
FACTORIES: St. Louis, Mo., Davenport, Ia. **ST. LOUIS, MO.**

Bee Sharp

...and buy the...

Sheet Metal Workers Guide.

A Practical Handbook for Tinsmiths, Coppersmiths and Zinc Workers. A collection of rules and diagrams for describing the most useful patterns ordinarily required, preceded by chapters on Sheet Metal Work, Soldering, Geometry as applied to Sheet Metal Working. By W. J. E. CRANE. Price, postpaid, 60 cents.

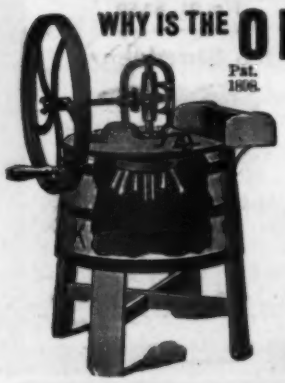
DANIEL STERN,
69 Dearborn St., Chicago.

THE Peerless Flue Stopper

Steel wire springs instead of sheet iron stays.
Stays where you put it, and is absolutely soot and smoke proof.
Made either plain or decorated.
Send for miniature sample and prices.

Welling Manufacturing Co.,
Columbus, O.

WHY IS THE OK THE BEST ROTARY Washing Machine?



Pat. 1898.

BECAUSE

1.—It is the only Rotary Washer that has **Revolving Steel Ball Gearing**, reducing **the friction** and thus making machine so **light running** and almost **noiseless.**
2.—The tub is made of **Louisiana Red Cypress Lumber**, cherry finish; the legs are **solid with tub**, (not removable, breakable legs fastened with screws).
3.—The wheel turns right or left, pin wheel or dasher reverses automatically, turning the clothes back and forth through the hot soap-suds, and cleaning them without **rubbing** them to pieces.
4.—This washer is made by **experienced mechanics**, and will outlast any other washer on the market.
5.—The tub has a wringer box fastened with steel brackets.
6.—The lid on tub closes tight, **no escape of steam.**

MANUFACTURED BY
H. F. BRAMMER MFG. CO., Davenport, Iowa.

Send 10c. in Stamps for Free Sample of **"Solid-Steel" Lava Enameled Ware.**

The Cleveland Stamping and Tool Co., CLEVELAND, OHIO.

C. R. SIPES, Arkansas City, Ark., writes: "We could hardly keep house without The American Artisan."

R. J. BEISE, STEWARTSVILLE, MINN., WRITES: "PLEASE TAKE MY AD OUT FOR I AM GETTING MORE LETTERS THAN I CAN READ. I THANK YOU VERY MUCH FOR THE SPACE USED."

Iwan's Volcano Revolving and Ventilating Chimney Top

BEST IN THE WORLD.

Patented Dec. 13, 1892, and March 14, 1894. Reissued Oct. 7, 1893. Pat. in Canada Feb. 9, 1893, and Apr. 6, 1894.

BUY IWAN'S VOLCANO AND YOU WILL MAKE NO MISTAKE. SATISFACTION GUARANTEED.

Why Iwan's Volcano Revolving Chimney Top Excels all Others:

1st. The iron mountings are composed of only two parts, and no pins or wire are required to hold down cap.

2d. It protects chimney fully from rain, sleet and snow, and prevents all downward draft.

3d It has a Deflector corresponding with Hood, by which is formed the sloped opening in back of hood, which creates a strong upward draught, and allowing free passage of smoke. No other chimney top possesses these advantages.

If iron mountings only are ordered, patterns for hood and vane will be furnished free of charge.

Write for our complete illustrated circular of post hole augers, post hole diggers, drain cleaners, drain and ditching spades, hay knives, conductor pipe hangers, etc.

Sold by the Jobbing Trade.

Iwan Bros., Mfrs. of Hardware Specialties **Streator, Ill.**

GEM SOLDERING FURNACES.

The best soldering furnace yet put on the market. We guarantee every furnace to be worked out of doors or on roofs in all kinds of weather. They are intended to supply a want long felt by Tinners, Plumbers, Electricians and Pattern Makers We have many kinds for many uses.

SMOKELESS
ODORLESS
NOISELESS
RELIABLE
DURABLE
PROMPT
EFFICIENT

BURGESS SOLDERING FURNACE CO.

SEND FOR CATALOGUE AND PRICES. COLUMBUS, OHIO.

FOX Brand Razors

Are Known as the Best.

We make all widths and Styles. The Fox Trade Mark is Registered. Send for Catalogue.

FOX CUTLERY CO.,

928 Main St., Dubuque, Ia. 48 Center St., New York, N. Y. Canandaigua, N. Y.

The B. O. E.

(Best on Earth)

Sad Irons,

Potts Pattern.

This is the best finished and best iron ever made, and while it costs more than the common Potts iron, it is worth double the price asked for it.

The Schreiber & Conchar Mfg. Co.,

Manufacturers of Hardware, Dubuque, Ia.

The Johnson Lighting Co.,
Atlantic, Ia., write:

"Please withdraw our ad. 'Wanted, a First-class Galvanized Iron Worker.' One insertion did the business."

The House-Warming Manual.

Is beyond all doubt the best book published on practical house-heating.

It contains the plans and essays on heating a house submitted in THE AMERICAN ARTISAN House Warming Competition for $300.-00 prizes, and is in fact

An Encyclopedia of the Most Modern and Improved Practical Methods of Heating a House by Steam, Hot Water and Warm Air.

The Chicago Journal of Commerce, of July 26, '96, says in course of a lengthy and commendatory review:

"The volume is a well-bound and artistically printed and illustrated volume of nearly 300 pages, and contains some masterly essays on steam heating, hot water heating and warm air heating. Nearly every prominent authority in this field is quoted, and an application of principles and improvements suggested covers all technical details in a simplified and practical way. House plans and diagrams accompany the subject matter, which deals specifically with radiation, combustion, ventilation, prices, estimates, and the best and latest methods for placing, connecting and utilizing the apparatus adopted."

PRICE, ONLY $3.50 PER COPY.

For sale by all booksellers or the Publisher,

Daniel Stern,

69 Dearborn Street,

CHICAGO.

THESE LAMPS

are made for out-door or in-door use. They give a powerful and brilliant light, and are not affected by the wind.

They are suitable for use in mills, workshops, warehouses, stables and summer resorts, or in any other place where a good light is required which will not be affected by strong breezes.

Where it is desired to light up a long row of animals, or a long narrow room of any kind, these lamps are especially desirable.

No. 30 is fitted with our patent bull's-eye lens on perforated plate, adding to the appearance of the light.

No. 30 has a No. 0 globe, 1-inch wick and a bright tin reflector 12 inches in diameter.

No. 60 has a No. 2 globe, 1½-inch wick and a bright tin reflector 16 inches in diameter.

FOR SALE BY

ALL LIVE JOBBERS.

If you handle Lanterns send to us for a catalogue and to your jobber for prices.

R. E. DIETZ COMPANY,
NEW YORK CITY.
ESTABLISHED 1840.

The Quicklight Lamp

is the only lamp fit for house use. No noise, no flicking out, but is quiet, and a steady light. Made in DOUBLE, SINGLE and STAND LAMPS. Write for circular and price list, and terms to agents.

THE GREAT OBJECTION to all of the different makes of gasoline lamps **heretofore offered** to the public has been that they require **generating**, which means tiresome delay in lighting, difficulty in keeping in working order and heavy expense for repairs; the different parts of the lamps being complicated. There is also the expense of **alcohol**, which is an absolute necessity with all **generating lamps**. The "Q" requires no generating, no alcohol, no waiting, it is operated the same as ordinary city gas, **lights instantly**, can be **turned up or down**, as desired, and is absolutely safe.

You are doubtless familiar with generating lamps and the many disagreeable features. No generating lamp will sell at any price where our **Quicklight Lamp** is known, and as a gift the generating lamp will soon cost more money for alcohol, repairs, etc., than our lamp at full retail price.

We are not trying to compete with cheap Lamps. You can buy them at any price. We prefer to offer you the best lamp ever made.

We guarantee entire satisfaction. Patented July 24, 1900.

Quicklight Mfg. Co.

204 State St., Chicago.

Charles Hahn, Red Lodge, Mon., writes: "Please discontinue ad of 'tools wanted.' Much obliged. Had a dozen offers."

BIG FOUR ROUTE

Chicago to { Indianapolis, Cincinnati, Louisville, the South and Southeast

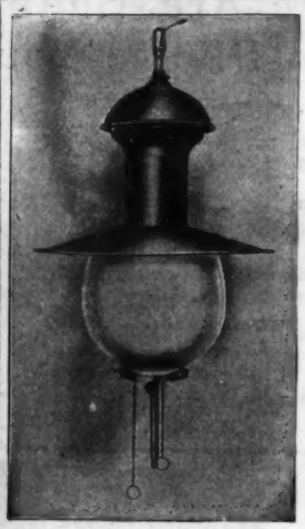
Peoria, St. Louis, Indianapolis, Cincinnati, Louisville } To **New York** AND **The East**

W. P. DEPPE, A. G. P. & T. A. W. J. LYNCH, G. P. & T. A.
CINCINNATI.

J. C. TUCKER, G. N. A., 234 Clark St., Chicago

J. N. FEYDER
OSCEOLA MILLS, WIS.—Writes:

"Please discontinue my ad for a tinner. I have inquiries for the place every day."



ELECTRICITY?
NOT MUCH!!!

It's the wonderful one-gallon

DORAN LIGHT.

Equal in every way to an Electric Arc Light at one-tenth the cost.

They can be turned up or down at will and are the most diffusive lights on the market today.

RESPONSIBLE AGENTS WANTED IN EVERY TOWN WHERE WE ARE NOT REPRESENTED.

THE SALE OR RENTAL OF DORAN LIGHTS WILL GIVE YOU AN INCOME OF FROM $200 TO $1000 PER MONTH.

Mr. W. C. Coleman, of Fort Worth, Texas, who has several offices throughout the west, says, under date of July 7th, 1901—"I have an income of $1000 per month after having handled your lights for two years."

We protect our representatives in the territory that we assign them.

Send for catalogue and descriptive matter.

ACORN BRASS WORKS, Dept. H. **Chicago, Ill.**

The Imperial Lighting System

PATENTS PENDING.

Economical, brilliant, durable, reliable and simple to operate. A light equal to an electric arc at a very low cost. The Imperial Lighting System is far superior to the Electric Arc, being softer, whiter and absolutely steady.

From a tank the gasoline is conveyed throughout an entire building through a flexible copper tube that can be put through crevices, around corners and concealed the same as electric wires, and as many lights as may be desired can be supplied from the same tank. The Imperial System burns common stove gasoline, gives a 1,200 candle power light, and one gallon of gasoline burns 16 hours.

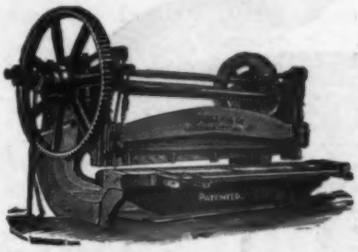
All lamps are fully guaranteed, and are trimmed complete with full instruction as to installing and operating the system.

We also manufacture a complete line of Gravity and Air Pressure Lamps. Write for illustrated catalogue.

THE IMPERIAL GAS LAMP CO., Sole Manufacturers,
132-134 E. LAKE ST., CHICAGO, ILL., U. S. A.

Improved Shears and Gauge Punches, with or without engine, or Direct Steam Shears. 8 different styles [hand or power].

Automatic Self-Opening Rolls, quickly and easily adjusted, all sizes to 20 feet. Also Crimping Rolls, Hand and Power Punches, Labor-saving machines, etc.



BERTSCH & CO., • • Cambridge City,

Greig Brothers, Mitchell, Iowa, write: — "Please discontinue ad for Tinner, we have had applications from Ohio to Northern Wis."

EVERY HARDWARE DEALER.

SHOULD BUY

LAMBERSON'S HARDWARE PRICE BOOK.

The alphabetical arrangement of goods has been adopted in this book. The name of each article is printed in a space at the left of the page, with six columns at the right for insertion of list, cost, sell, or anything else required.

The book contains a large list of shelf and heavy hardware, such as is kept by hardware dealers in all sections. Sizes in leading lines are printed, and some useful tables and comparative lists are given. List prices are omitted for the obvious reason that they are liable to change, but forms are arranged with printed headings and sizes, so that they may be added with pencil, and changed when necessary.

Blank pages are bound in each alphabetical division so that additions may be made in proper alphabetica order, and will be found sufficient for all ordinary purposes. Pocket Edition, as shown in cut, 250 pages, 4x7 inches. Full leather, with flap, Price $4.00. Large edition for office or store use, substantially the same as the pocket edition except in size, 500 pages, 6x9½ inches, leather, $8.00. Sent postpaid on receipt of price.

DANIEL STERN,
69 DEARBORN STREET.
CHICAGO.

The Crusty Bread Pan.

The Mrs. Van Deusen Egg Whip.

The famous Mrs. Van Deusen Cake Molds and Other Household Specialties.

The Mrs. Van Deusen Cake Molds

Magnificent Sellers. Order Samples and you will Always Handle Them.

C. A. CHAPMAN, 1279 EXCHANGE ST., GENEVA, N. Y.

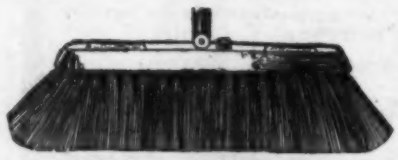
Merchants Can't Afford to Overlook the

WORLD'S ONLY

SANITARY DUSTLESS FLOOR BRUSH

No damage to stock from dust—cleanliness and health in the home.

Make your Application for the Agency To-day.



Milwaukee Dustless Brush Co.
122 Sycamore St., Milwaukee, Wis.

Standard Chain Company.
Chain of all Kinds.
Pittsburgh, Pa.

No. 230.

Draft Register Screw and Plate

COMPLETE

MANUFACTURED BY

The Fanner Manufacturing Co.
CLEVELAND, OHIO.

We Are Bound To Please You.

$4.50 Net.

If you are looking for a Fire Pot or Torch, send for our catalog. It tells all about the largest line in the world. We have made arrangements with the jobbing trade everywhere to supply at factory price, in this way bringing every user within easy reach of anything we make. REMEMBER, if the Fire Pot or Torch you buy bears our name it means your money back if it does not please. If you have a crippled Fire Pot, why not write us about it? We will help you.

Clayton & Lambert Mfg. Co.
DETROIT, MICH.

Just a Little Higher

in price, but so much

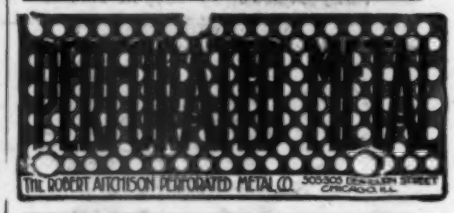
HIGHER IN QUALITY

that the great majority of dealers prefer to sell

Caldwell Sash Balances

They can recommend them with clear conscience. Write for catalog.

Caldwell Mfg. Co.
2 Jones St., Rochester, N. Y.



J. R. West, Gas City, Ind., writes: "Please discontinue ad. for Tinner, as I am overwhelmed with applicants, and have had a man at work some time."

Old Dominion Horse Shoes.

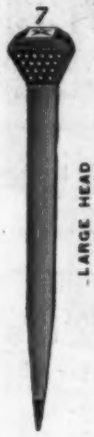
Illustrated Catalogue and Prices on Application.

Old Dominion Iron & Nail Works,

RICHMOND, VA., U. S. A.

ARTHUR B. CLARKE, President.

Star Horse Nails



THE TOUGHEST AND BEST MADE

In Ordering STAR NAILS State Whether You Want Large or Small Heads, Explicitly in Your Order.

THESE NAILS ARE MADE OF THE BEST SWEDISH IRON.

MANUFACTURED BY

UNION HORSE NAIL CO.

585 to 603 Twenty-Second Street, - CHICAGO, ILLINOIS.

The O. K. Steel Brake.

THE O K Steel Brake

Prices for Our Regular Sizes:

No. 1—12	feet	1	inch	on	forming	edge	$ ——
" 2—10	"	1	"	"	"	"	250.00
" 3— 8	"	1	"	"	"	"	150.00
" 4— 8	"	1	"	"	"	"	100.00
" 5— 4	"	½	"	"	"	"	75.00
" 6— 4	"	½	"	"	"	"	60.00
" 7— 4	"	½	"	"	"	"	50.00

Discount and particulars on application.

Brakes for steel range work and other specialties to form up material from 10 gauge up.

Dreis, Andrews & Krump, SUCCESSORS TO O. K. MFG. CO

3039 and 3041 S. Halsted Street, CHICAGO, ILL.

GEO. E. SCHILLER, MONTROSE, MO. writes: "Please discontinue my ad. in The American Artisan, for it has done its work."

TACKS

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ELM & FRONT STS.
CINCINNATI, O.
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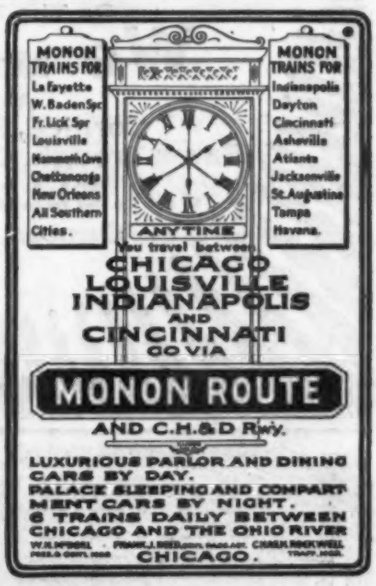

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Come and see what splendid opportunities the South affords. Reading matter, maps and detailed information sent free upon application to

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WRITES:

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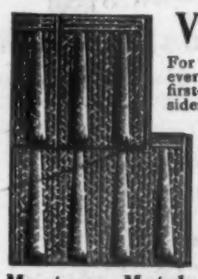
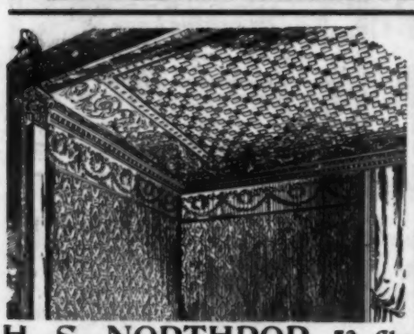
You Want
The Latest Designs,
and
Best Fitting
METAL CEILINGS
On The Market,
We Make Them.
Also
Cornice, Skylights,
Eaves Trough, Conductor Pipe.
J. H. ELLER & CO.,
Canton, Ohio.

The Powers Automatic Chimney Top
IS BEST ON EARTH.
Is only one with brace adjusting and holding cover. Is most perfectly and scientifically made. Is more used than all others combined. Sold by Leading Hardware Jobbers and Dealers. Made only by
POWERS BROS.,
STREATER, ILL.
Write for Prices, Etc.
Irons only or Complete.



VICTOR
For public buildings of every character where first-class roofing is a consideration, our galvanized
VICTOR SHINGLE
is unequalled.
Deeply embossed.
Presents attractive appearance.
Telescope Side Lock.
Catalogue fully describes them.
Montross Metal Shingle Co.,
CAMDEN, N. J.



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and do well for their customers and themselves. Send for catalogue—give diagram and description of room for an estimate and we will do the rest.
H. S. NORTHROP, 53 Cherry Street, NEW YORK.

The "Centennial" Rain-Water Cut-Off.

The strongest, most durable and cheapest CUT-OFF on the market.
The only single Cut-off made to fit CORRUGATED and Plain Pipe and which can be used without extra pipe or elbows. For sale by all leading jobbers.
Patent applied for. Manufactured only by
COONEY & GEIGER,
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"Sampson Brand" Pure Asphalt Roofing.
Never Dries Out or Cracks.
Planet Brand Tarred Ready Roofing, Slaters' Felt, Building Papers, Roofing Cements, Paints, Etc.
Write us for prices. J. L. Perkins & Co., 241 Lake St. CHICAGO.

Our "Confidential" Catalogue No. 115
Intended exclusively for the Legitimate
Hardware Trade,
Contains a bargain list of merchandise bought by us at
Sheriffs', Receivers' and Manufacturers' Sales.
Write for it to-day.
Chicago House Wrecking Co.,
West 35th and Iron Sts.,
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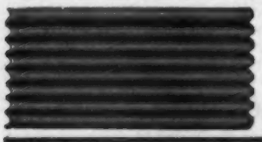

Write us for Catalogue and Low Prices on BEST
Steel Roofing, Corrugated Iron, Etc.
We are large manufacturers of these goods and can save you money.
SYKES STEEL ROOFING CO. Chicago, Ill., and Niles, Ohio.

"Eagle" Brand Copper Rivets and Burrs.
STANDARD FOR QUALITY. (Lake Superior Copper.)
—MANUFACTURED BY—
THE PLUME & ATWOOD MFG. CO.,
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WILL C. HENNING, Berlin, Wis., Writes:
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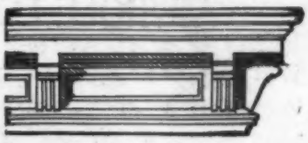
KEELING & COPELAND, Volga City, Ia., write: "Please discontinue our advertisement in your tinners' tools column. We have disposed of the tools all O. K. THE AMERICAN ARTISAN is a great paper to advertise in."

JAMES A. MILLER & BRO.
129 So. Clinton St.,
CHICAGO.
Correspondence Solicited.



Corrugated and other
IRON ROOFINGS
SKYLIGHTS,
CORNICES,
CONDUCTOR PIPES,
GUTTERS, ETC.

Send your orders to us. We have a large stock and guarantee prompt shipments.
We manufacture
Roofing, Siding, Ceilings, Eaves Trough, Conductor Pipe and Trimmings, Tin Plate, Solder and Sheet Iron
La Crosse Steel Roofing & Corrugating Co. La Crosse, Wis.

The Perfection Rain-Water Cut-Off.
EXCELS ALL OTHERS IN SIMPLICITY—STRENGTH—DURABILITY.
Klauer Mfg. Co.
SOLE MANUFACTURERS, DUBUQUE, IA.
SUCCESSORS TO W. A. SMITH & CO., PATENTEES, LIMA, O.

ROOFING SLATE
Bangor Union, Sea Green, Purple, Maine, Red, Unfading Green, Peach Bottom, Penna. Black.
AULD & CONGER
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CLEVELAND, O.

GARRY IRON & STEEL
ROOFING COMPANY
CORRUGATED
ROOFING SIDING & CEILING
CLEVELAND OHIO.

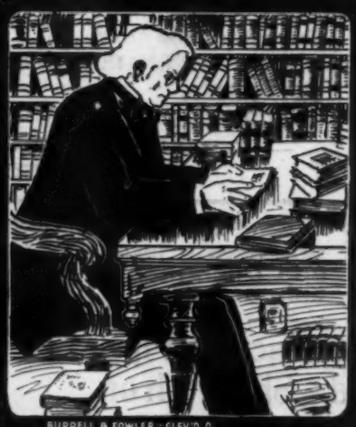
Bradner Smith & Co.
Paper Makers,
CHICAGO.
BUILDING,
WRAPPING,
WRITING,
NEWS,
BOOK
Paper
Send for Catalogue.

Great Assortment of Ears, Knobs and Handles. Leading Supply House in America for this class of goods. Ask for Samples, Catalog and Prices.
BERGER BROS. CO. MNFRS.,
231 and 237 Arch Street, PHILADELPHIA.

S. C. SMITH, President — WM. BRAY, Treasurer — B. W. RIBBLE, Secretary
The East Bangor Consolidated Slate Co.
.... MANUFACTURERS OF ....
Laundry Tubs, Burial Cases, Urinal Stalls, Tiles, Genuine Bangor Roofing Slate and General Structural Slate.
EAST BANGOR, PENNSYLVANIA.

M. Hosterman & Son, Marshfield, Wis., write—
"You may take our ad. out of THE ARTISAN as we have bought a kit of tools. We received 8 or 10 replies to the ad. and think your paper all right."

If you wish your prosperity to be continuous make your advertising continuous. One begets the other.—The World.



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Won't put out a fire, but research and experience have taught us how to make Steel Ceilings and Side Walls that are fire proof, water proof and dust proof. An ounce of prevention is worth 10 pounds of fire insurance.

For clean business and a good profit, handle our product.
Write for catalog of designs and prices.

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New York Agency, 157 W. 23rd St. 269-R. CANTON, OHIO.

IN MEMORY OF

WILLIAM McKINLEY

OUR LATE BELOVED

PRESIDENT AND TOWNSMAN.

"MAY HE REST IN PEACE."

THE BERGER MFG. CO.,
CANTON, OHIO.

American Tin Plate Company

MANUFACTURERS . . . . .

Tin Plate
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. . . and . . .
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GENERAL OFFICES: Battery Park Bldg. New York.

It is made of Steel.

White Tile Top.

Tin or Brass Scoop.

Brass Dial.

IMPROVED
YOUNG AMERICA SCALE.
BEST IN THE WORLD.

A most beautiful and attractive scale for all purposes. Beautifully enameled, ornamented and striped. Weighs 20-pounds by ounces. Occupies but little space. Is light and easily moved. It can be regulated by turning the brass screw on top. It is always ready and easily understood. It is a convenient scale to use and has no weights that may be lost. You can look this one in the face to prove its accuracy without looking for weights. Every scale examined before leaving the factory and warranted correct.

MANUFACTURED BY

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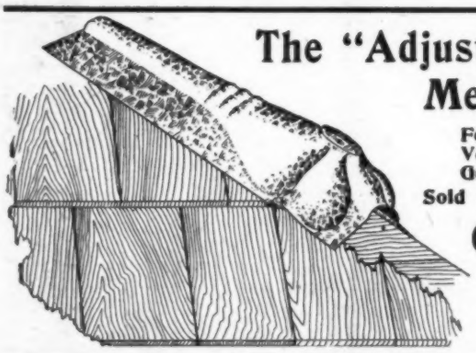

The "Adjustable" Stamped Metal Hip Shingle.

For Shingle or Slate Roofs.
Very Ornamental.
Good Sellers.
Sold to Dealers Only. Mfd. by

Galesburg Cornice Wks.

GALESBURG, ILL.

WRITE FOR DESCRIPTIVE CIRCULAR.

Tools for Sheet Metals

Tinsmiths' Roofers' Cornice Makers' } TOOLS

SHEARS, PRESSES and DIES, PUNCHES, ROLLS

Made by

Niagara Machine and Tool Works

BUFFALO, N. Y.

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On First and Third Tuesdays in each month to

VIRGINIA,

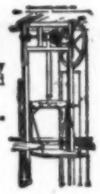
Via NORFOLK & WESTERN RAILWAY.

For all information as to RATES and TICKETS and for LAND PAMPHLETS and descriptive matter, address ALLEN HULL, D. P. Agt., Columbus, Ohio.

ELEVATORS

Improved, Quick and Easy Rising Steam and Hand Power.

Kimball Bros. Co.
1061 9th Street
Council Bluffs, Iowa
Omaha Branch,
108-110-112 North 11th St.



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Magic Pattern Rule

Will lay out patterns for any size and angle of elbows in three minutes' time. Can also be used as Straight-edge Rule, Circumference Rule and Trammell. Should be in every Tinshop. Will save its cost in a few weeks. Thousands are in use and every one giving excellent satisfaction. Price, complete in a nice wooden box with Chart, $4.00 net cash. (Mention THE AMERICAN ARTISAN.)

Lufkin Rule Co.,
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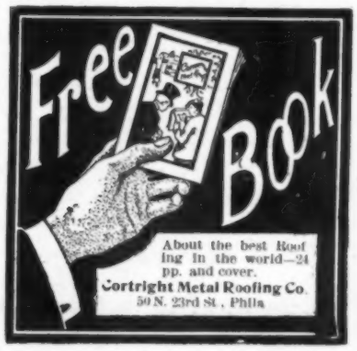
'Tis a pleasant subject, and a profitable one, too. Has it ever been presented to you? We should like to take it up with you. It means money. Catalogue free.

Illinois Roofing & Supply Co.,
23 Lake Street, Chicago.



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McClure's Genuine Charcoal Iron Redipped Roofing Tin.

McCLURE & CO.,
Manufacturers of Tin Plate,

PITTSBURGH, PA., 211, 213 and 215 Second Ave.
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STEVENS
Favorite Rifles.

This is the Most Popular Rifle Made.
ALL UP-TO-DATE DEALERS CARRY OUR GOODS AND FIND THEM A PROFITABLE LINE TO HANDLE.
Your Jobber Carries Our Line.
Catalogs Sent Upon Request.

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CHICOPEE FALLS, MASS.

Furnace Men's Supplies

Registers At old list and discount.

Hot Air Pipe Excelsior Standard Wall Pipe.
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Heater Pipe Sizes: 20x28, 130 lb., 190 lb., 200 lb. IC, IXL, IX, 2 X.
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The J. M. & L. A. Osborn Co.,
26-36 THE VIADUCT, CLEVELAND, O.
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We Solicit Your Orders
FOR
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Ic 28X20 ternes, all weights.
Ic 28X20 coke tin, full weight.
200lbs.
190 lbs.
180 lbs.
160 lbs.

Galvanized Sheet Iron
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Solder, Wire, Zinc, Etc.

N. & G. TAYLOR Co.,
MANUFACTURERS TIN AND TERNE PLATES.
PHILADELPHIA.

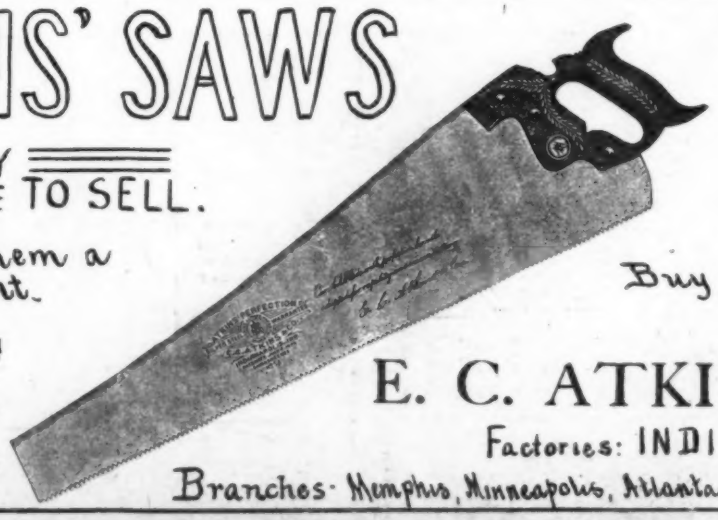
ATKINS' SAWS

ARE EASY TO SELL.

Dealers Find Them a Good Investment.

Every Saw is Fully Warranted, and You Can't Lose out.

Write for Prices.



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